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ABSTRACT

This volume of 12 lessons--each one written by either a medical or mental health professional--provides expert information on a variety of medical and psychological issues in rehabilitative counseling. The lessons, each of which concludes with a few multiple-choice questions, are as follows: (1) "Behavioral Techniques for Treatment of Obesity" (S. C. Sitton); (2) "Evaluating the Adolescent Substance Abuser" (R. J. A. Stowell); (3) "A Constructive Developmental Perspective on Career Counseling" (G. McAuliffe); (4) "Preparing Rehabilitation Counselors to Deal with Ethicalcal Dilemmas" (C. Rollins); (5) "Teaching Self-Help to Vocational Rehabilitation Clients" (F. E. Balcazar and C. B. Keys); (6) "Treatment of Depression and the Restoration of Work Capacity" (J. Mintz, L. I. Mintz, M. J. Robertson, R. P. Liberman, and S. M. Glynn); (7) "Counseling the Learning-Disabled Client" (T. P. Byrne); (8) "Neuropsychological Assessment for Persons with Sensory Impairments" (L. M. Kaskel); (9) "Chronic Disease: Characteristics and Psychosocial Interventions" (S. E. Robinson); (10) "Counseling Long-Term Survivors of HIV/AIDS" (R. H. Remien and G. J. Wagner); (11) "Low Back Pain Case Management: An Approach for Vocational Rehabilitation Counselors" (S. J. Scheer); and (12) "Sports and Exercise Programs for Persons with Physical Disabilities" (B. Hedrick). Contains an index and each lesson contains references. (RJM)

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Directions in Rehabilitation Counseling

VOLUME 5

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Special Report
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James H. Palmer, EdD, CSAC

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Program Coordinators
Frederic Flach, MD
Lloyd R. Goodwin Jr, PhD, CRC

Curriculum Consultants
Pamela Chwala, RN, CRRN, CCM
Daniel F. Crawford, PhD, CRC
Florence Curnutt, CRC
Donnelle I. Eargle, PhD, MEd
Marilyn J. Lahiff, RN, CRRN, CIRS, CCM
Paul Leung, PhD, CRC
Keith M. Robinson, MD
Susan R. Sabelli, CRC, LRC

Managing Editor
Debra E. Cermele

Associate Editor
Steven L. Pessagno

Editorial Assistant
Adam W. Cohen

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Directions in Rehabilitation Counseling

VOLUME 5 • LESSON 1

Behavioral Techniques for Treatment of Obesity

Sarah C. Sitton, PhD

Dr. Sitton is Associate Professor of Psychology, New College, St. Edward's University, Austin, TX.

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Editor's Note

Approximately one out of every four persons in the United States is at least 20% overweight, and 2.4 million Americans are severely obese. At the most severe levels, obesity is associated with hypertension, gallbladder disease, coronary artery disease, diabetes, bone and joint problems, and sudden death. Moreover, obese persons are confronted with discrimination in every aspect of their lives—from work to personal relationships. It is not surprising, therefore, that billions of dollars are spent annually for weight-loss programs and products by both obese and nonobese persons.

Obesity can complicate a rehabilitation program in several ways. The primary dangers in any case of obesity are the health problems often associated with this condition. In cases in which clients are physically disabled, obesity can present additional obstacles, both to the process of physical rehabilitation and conditioning, and also to the psychological goals of self-acceptance and self-esteem. Additionally, societal stigma against overweight persons can impede the work adjustment process. As Dr. Sitton reports, obese persons are perceived as less capable, lazier, and more indecisive than coworkers. This presents additional challenges to the rehabilitation counselor's ability to place the client effectively in work situations. Inasmuch as the task of the rehabilitation counselor is to help the client formulate effective goals for permanent health and lifestyle changes in many areas, the rehabilitation context can provide the ideal supportive environment to help the client initiate a healthy plan for physical conditioning and weight loss.

Indeed, many clinical treatments for obesity exist. In this lesson, the author discusses the efficacy of several different therapeutic approaches, including psychotherapy, behavior therapy, family therapy, cognitive therapy, and protein-sparing fasts. The indications and contraindications of protein-sparing fasts are examined in detail. Dr. Sitton concludes that behavior therapy, alone or combined with other therapies, may be the most effective form of treatment to promote weight loss and prevent relapse.

Obesity is an ongoing medical condition that requires a continuous treatment regimen. Indeed, it is viewed by some researchers as a substance abuse disorder, and, as such, requires perpetual external controls. To prevent relapse, the obese person must commit himself or herself to making permanent lifestyle changes in eating and exercise patterns. To maintain these changes, the author advocates the use of ongoing counseling and peer-support groups.

Introduction

Most health professionals consider obesity a serious health problem that affects millions of Americans. According to the National Health and Nutrition Examination Survey, **26% of the population of the United States is at least 20% overweight, and 2.4 million Americans are severely obese.**[1] **At severe levels, obesity is strongly associated with hypertension** (elevated blood pressure), **gallbladder disease, coronary artery disease, diabetes, bone and joint problems, and sudden death.**[2] Even mild obesity has been linked to physical complications.[3]

In addition to an increased risk of developing disease, obesity carries a stigma in our society; **obese persons experience discrimination in all facets of their lives. In the work environment, obese persons are perceived as less capable, lazier, and more indecisive than coworkers.**[4] Opportunities in a social milieu are equally restricted with both men and women who prefer "athletic body builds" for potential companions.[5] Not surprisingly, many Americans seek to lose weight—and they spend billions of dollars annually in this pursuit.

Although persons with moderate levels of obesity may respond well to self-help approaches or commercial weight-loss plans, **successful treatment of morbid obesity (defined as weighing 100 pounds or more above ideal weight) often requires a professionally supervised weight-loss program.** Medical conditions frequently associated with morbid obesity must be monitored carefully during the weight-loss program.

Treatment of Obesity

Clinical treatments for obesity vary as much as the theories of its origins. The **psychodynamic approach** focuses on **working through problems in personality development associated with fixation at the pregenital stage, such as passivity, dependence, and poor coping ability.**[6,7] **Family therapy** emphasizes the **role of the family system in creating circumstances favorable to obesity,** perhaps with one spouse subtly encouraging the other to overeat. **Cognitive therapy** emphasizes the need to **replace "negative self-talk" about eating with a positive internal monologue about one's ability to succeed at weight control.**[8] If assessment indicates underlying psychopathology associated with obesity, these issues must be addressed in counseling.

Most treatments of obesity do result in weight loss. However, maintaining the loss for more than a few months is a far greater challenge. **Some studies indicate that as many as 97% of dieters regain most of their weight after 4 years.**[9] To improve long-term maintenance, **many weight-loss programs now incorporate a behavioral component,** which shows promise in helping clients maintain weight loss after treatment.

BEHAVIORAL TECHNIQUES:

Although **it is difficult to establish in the laboratory that obese persons eat differently or even consume more food than nonobese persons, many overweight persons admit that in the privacy of their homes, they consume large amounts of food in relatively short periods,** frequently while watching television. They often skip breakfast and perhaps lunch, beginning to snack in the midafternoon and continuing to eat until bedtime. **Several studies have noted the success of behavioral weight-control programs in normalizing eating patterns.** The application of behavioral principles to weight control began with a 1962 study by Ferster and associates.[10] These behavioral techniques emphasize breaking old eating patterns and replacing them with new ones.

Wadden and Bell[11] reviewed more than 150 studies that indicated **behavioral programs produced better results than other approaches to weight loss, such as nutritional counseling, psychotherapy, drug therapy, and self-help programs. The average weight loss for persons in behavioral programs was 18 pounds for a 16-week program.**

As with the behavioral treatment of any disorder, **the first step in the treatment of obesity is to identify antecedents to the behavior through self-monitoring;** i.e., which stimuli lead to overeating. With behavioral treatment, clients keep food diaries, recording what they eat, how much, when it is consumed, and any emotions associated with eating. Often, the process of self-monitoring itself leads to reduced food intake as the person becomes more aware of his or her eating habits. **Once the antecedents are established, stimulus control can be initiated.**

Stimulus control limits cues associated with inappropriate eating. Dieters identify high-risk times, activities, and foods that frequently lead to overeating and devise plans for controlling their behavior. **High-risk foods,** such as peanut butter and ice cream, **should be removed from the home or at least concealed in special locations** for access by other family members, if appropriate. The range of cues associated with eating also can be restricted by **having the dieter eat only at the dining room table,** rather than in front of the television or while reading in bed.

Another tactic is to minimize contact with food by avoiding cooking and social occasions where food is served. The dieter eventually must learn to deal with these situations, but avoidance may be the best tactic early in the program.

Although evidence indicates that obese persons may not be more motivated than other people by external cues to eating, such as the sight and smell of food,[12] most people eat more if food is readily available. **By restricting eating to certain times and to only one or two places, dieters reduce the number of times, locations, and circumstances associated with eating and gradually weaken the association between these stimuli and the response of eating.** It is particularly important to restrict other activities (e.g., watching television or talking on the telephone) while eating so that these actions do not become stimuli for eating.

Another hallmark of behavioral weight-loss programs involves the **direct modification of eating behaviors.** Dieters learn to eat more slowly by taking small bites and pausing between bites of food—a technique that results in less food consumption.[13] **Watching oneself in the mirror while eating provides helpful feedback.**

A difficult exercise is to leave a certain amount of food on the plate. The powerful stimulus of food on one's plate must be mastered. This exercise is analogous to exposure-and-response prevention often used successfully in the treatment of obsessive-compulsive disorders. To gain control of his or her eating, the obese person must learn to suppress the response of eating when exposed to the stimulus of desirable food.

Developing a plan of action for dangerous situations (e.g., restaurants or parties) also helps. For example, the dieter might decide in advance to order a green salad and black coffee, not looking at the menu in the restaurant. Writing down one's game plan or telling it to others who will be present establishes commitment to the plan, which increases the likelihood of adherence.

Behavioral weight-loss programs often consist of small groups that meet weekly for 30–60 minutes for 4–6 months. The meetings are structured to deal with **one topic per meeting. Group members discuss their progress of the previous week—including any difficulties faced—and receive feedback from the counselor and other group members. Homework assignments consist of practicing a particular eating behavior,** such as eating only at the dining room table or leaving food on the plate.

The structured format of these programs facilitates both short-term and long-term goals, which include progress toward the client's target weight as well as behavioral goals. In addition to the praise from other group members and the counselor for meeting these goals, **clients are encouraged to reward themselves with pleasurable activities or purchases.** Of course, **food is never used as a reward.**

Other forms of contingency management include a monetary rebate for pounds lost or for homework assignments completed. **Punishment is not used, although clients may make a desired activity contingent on accomplishing a goal.** For instance, one woman who greatly enjoyed working on her first novel every evening after work made this activity contingent on not stopping at the bakery on the way home; after the third day, she realized that her desire to write was stronger than her desire to eat a muffin.

Behavioral techniques are often paired with other techniques for weight loss. Adding a behavioral component increases the success rate for such diverse approaches as **commercial weight-loss programs**[14] and **gastric surgery.**[15] **Behavior therapy alone is sometimes as effective as a combination of tactics.**

COGNITIVE THERAPY:

Cognitive therapy also has been added to behavioral techniques for weight control. This approach teaches the client to monitor thoughts and replace negative or maladaptive thoughts with positive ones. **As useful as cognitive therapy is for such disorders as depression, its addition to a weight-loss program did not seem to produce better results than behavior therapy alone.**[16]

PROTEIN-SPARING FASTS:

In recent years, behavioral techniques have been paired with a protein-sparing fast, a type of very-low-calorie diet. Fasting had fallen into disuse as a technique for weight loss after several deaths resulted from complications; furthermore, it became apparent that maintenance of the weight loss following fasting was very poor.[17] **Administered under medical supervision, these fasts are usually reserved for adults with compelling medical reasons to lose weight rapidly. Contraindications to protein-sparing fasts include a recent history of myocardial infarction, cancer, type I diabetes, kidney or liver disease, broken bones, major depression, psychosis, or pregnancy.** In contrast to the liquid diets of the 1970s that caused several deaths due to cardiac arrhythmia, **these fasts supply enough protein to maintain healthy muscle tissue. Dieters receive 400–800 calories per day, usually in the form of three to five high-protein liquid supplements. During the fast, they consume no other foods,** which some proponents believe increases compliance with the diet because no other foods need to be encountered.

Side effects are usually mild and include constipation, postural hypotension (a type of low blood pressure that occurs when standing), **and cold intolerance. Dieters frequently note a marked increase in energy. More rarely, they report hair loss, dry skin, and dizziness.** There has been some indication of an increased probability of gallstone formation associated with very-low-calorie diets.[18] Although metabolic rate decreases during the fast by as much as 20%,[19] research indicates that once the dieter returns to a balanced diet, the metabolic rate returns to normal.[20] **Recently, very-low-calorie diets have been linked to an increased incidence of binge eating once solid food is reintroduced.**[21] Binge eating decreases after the termination of treatment and **does not appear to be related to decreased resting metabolic rate.**[22]

Several studies have shown that protein-sparing fasts produce rapid weight loss,[23] **usually 3–4 pounds per week depending on initial weight.** In addition, research has demonstrated that men also tend to lose weight faster than women. Also, **significant improvements (14%–17%) in systolic and diastolic blood pressure and serum cholesterol (20%–25%) as well as glucose levels in persons with diabetes occur quickly.**[24] Many persons with diabetes discontinue medication shortly after beginning the fast.

For morbidly obese persons, the fast usually continues for 3 months or longer. During this time, the dieter's progress is monitored by weekly medical examinations and behavioral-training sessions. **Solid foods are reintroduced at approximately 4 months,** coupled with a program of nutritional education and exercise.

The fast usually does not extend longer than 4 months, because "fasting fatigue" occurs. Although tests of cardiac function, measured by electrocardiography and 24-hour Holter monitoring, show no adverse effects for this time period,[17] longer fasts have not been tested adequately.

The combination of a protein-sparing fast with behavioral techniques has a greater effect than either method alone.[23] The fast produces significantly greater weight loss than behavioral techniques alone, and the addition of behavioral techniques reduces the high attrition rate common in fasting programs. The addition of behavioral techniques also significantly improves the high relapse rate in dieters who lose weight on a protein-sparing fast.[24]

As previously stated, the rate of regain for dieters who lose weight is high, often with 95% regaining most of their weight in a 3-year period.[25] In comparison, **participants in a protein-sparing fast coupled with behavioral training maintained two thirds of their weight loss after 1 year, and half of the loss after 3 years.**[26]

Relapse Prevention

The importance of maintaining weight loss cannot be overstated, because some researchers believe that the "yo-yo" pattern in which weight is lost only to be regained increases the body's "set point" for weight, making it increasingly difficult to lose weight. **The set-point theory posits that the body has a certain point at which it defends against weight loss by lowering the metabolic rate. This point increases as weight is lost and regained.**[27] Garner and Wooley[28] argue that **the adverse effects of weight cycling indicate that, in fact, obese persons should *not* be encouraged to lose weight.**

To maintain weight loss, the dieting person must make permanent lifestyle changes in eating and exercise patterns. **Weight-control programs must emphasize that the diet is not a temporary change in eating behavior that can be abandoned when the goal weight is achieved.** Obesity is an ongoing medical condition that requires a continuous treatment regimen.

Although exercise alone does not contribute significantly to weight loss, it helps maintain the new weight.[29] Stern and Lowney[30] found that exercise increased the rate of fat loss compared with the loss of lean tissue, and in some persons it even increased their resting metabolic rate. **Two to three years following a very-low-calorie diet, persons who exercised regularly maintained 64% of their weight loss, compared with 20% for those who did not exercise.**[31] **The importance of regular exercise in maintaining weight loss cannot be overemphasized.**

In addition to participating in regular exercise, persons who maintained their weight loss did not snack on high-calorie foods and rarely ate in front of the television.[32] They also ate less in response to emotional states.[33]

Continued self-monitoring is crucial for maintaining weight loss. The person must weigh himself or herself regularly and take steps to correct small gains (3–5 pounds). **Food diaries should be used because they highlight any gradual increases in the amount or changes in types of foods consumed and detect "apparently irrelevant decisions" or choices that occur early in a chain of behavior that leads inexorably to inappropriate eating.** For example, a person who is dieting may "accidentally" drive past a grocery store advertising a sale on ice cream and stop to purchase milk. He or she may then decide to purchase some ice cream "for the children" because it is such a good buy. The dieter then selects his or her favorite flavor. As the dieter ponders choices for a snack later in the evening, the temptation of the ice cream may be too great to resist. The apparently irrelevant decision to stop at that grocery store led to a behavior chain that resulted in a lapse. Analyzing the chain of behavior reveals that temptation can be avoided more easily early in the chain rather than later on. Learning to avoid these danger points is ultimately much easier than

correcting the damage done by an apparently irrelevant decision.

After such a lapse, the dieter may overreact by deciding that a small weight gain represents a total failure, and develop a sense of guilt, which in turn leads to loss of control. **Relapse prevention experts Marlatt and Gordon[34] stress the need to teach dieters how to recover from a lapse by analyzing high-risk situations in which lapses are likely to occur, developing a specific plan for dealing with the situation, and learning to interpret the situation as a temporary setback rather than an indication of complete failure.**

Some researchers now view obesity as a type of substance dependency that requires lifelong external control. Foreyt and Goodrick[35] recommend participating in permanent peer-support groups coupled with regular visits to a therapist. Similarly, Perri and colleagues[36] found that **an excellent predictor of weight maintenance was continued twice-monthly contact with a counselor.** At the end of the first year, dieters in a continued contact program had maintained their weight loss, in contrast to dieters in a 20-week weight loss program who regained half of their lost weight.[36] Hartman and coworkers[31] found that **dieters who continued in a maintenance program following a very-low-calorie diet maintained 70% of their losses, compared with only 24% for those who did not continue.**

Occasionally "checking in" with someone to whom one feels accountable apparently helps motivate dieters to control their weight. Many weight-loss programs now offer follow-up maintenance programs that provide peer support and counseling contact.

As evidence mounts regarding the dangers of weight cycling, **all forms of treatment for obesity must emphasize the need to maintain weight loss.** As Garner and Wooley[28] suggest, if the prognosis for relapse is high, the obese client may be better served with treatment that emphasizes modifying negative body image, building self-esteem, and enforcing qualitative dietary changes (such as eating more fruits and vegetables), rather than restricting quantities consumed.

For those who undertake a weight-loss program, the necessity of permanent lifestyle changes should be emphasized. Behavioral approaches to weight control provide beneficial techniques to help dieters replace old eating habits with more healthy eating and exercise patterns. To maximize their chances of maintaining weight loss, dieters should be encouraged to continue regular contact with a counselor and participate in peer-support groups.

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Questions Based On This Lesson

1. Behavioral approaches to weight loss:

   A. Emphasize stimulus control to minimize cues associated with inappropriate eating

   B. Often employ large groups that meet monthly for 2 hours for at least 6 months

   C. Always include treatment for depression

   D. Primarily emphasize the role of the family system in obesity

2. Very-low-calorie diets of 400–800 calories per day:

   A. Are also called carbohydrate-sparing fasts

   B. Usually result in rapid weight loss of 3–4 pounds per week depending on initial weight of the client

   C. Cannot be paired effectively with behavioral techniques

   D. Can safely be followed indefinitely

3. The dangers of weight cycling in which large amounts of weight are lost and regained include:

   A. A higher set point that makes it increasingly difficult to lose weight

   B. Permanent anorexia nervosa

   C. Cognitive distortion and/or psychosis

   D. Fatal or near-fatal side effects

4. Successful maintenance programs for weight loss include:

   A. Permanent lifestyle changes in eating and exercise patterns

   B. Peer support

   C. Continued self-monitoring

   D. All of the above

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Special Report

Impact of Aerobic Exercise on Inpatient Alcoholism Treatment

James H. Palmer, EdD, CSAC

Dr. Palmer is an associate with Therapeutic/Educational Associates, Chapel Hill, NC, where he specializes in the treatment of chemical dependency.

Introduction

For over 15 years, America has been experiencing a fitness boom that is only beginning to abate. During the 1980s, Americans jogged in record numbers; and 5-kilometer, 10-kilometer, and even marathon-length races were well supported and participated in by the general public. Aerobic exercise classes began almost exclusively in trendy gyms and spas, but are now the staples of almost every YMCA and community center in the country. As is reflected in their choice of sneakers and casual wear, even nonexercisers have been influenced by the "style" of the fitness boom.

Proponents of fitness, particularly of aerobic exercises such as running, swimming, biking, and cross-country skiing, have long reported that increased aerobic fitness can aid in alleviating a wide range of mental and physical problems. Aerobic literally means "with air" and is defined as any continuous, rhythmic exercise of the trunk and leg muscles capable of increasing breathing and heart rate.[1] Initially, these reports were anecdotal, submitted by avid exercise enthusiasts. These first reports have been followed-up by over 15 years of research, and few researchers or exercise physiologists would disagree now with Dr. Kenneth Cooper's list of the positive physical changes brought about by regular aerobic exercise. Dr. Cooper,[1] a pioneer in the field of aerobic exercise, stated that **regular aerobic exercise resulted in the following beneficial changes in the human body:**

- Lower heart rate
- Decreased blood pressure
- Higher energy levels for longer periods of time
- Weight loss/control
- Protection from heart disease
- Improved digestion
- Better sleep
- Improved intellectual performance
- Stronger bones

Impact of Aerobic Exercise on Psychological Functioning

Whereas research on the **physical benefits of regular aerobic exercise is relatively clear, the impact of aerobic exercise on psychological functioning is less well defined.** Studies by Morgan and colleagues[2] and Blue[3] demonstrated that aerobic exercise reduced depression levels. Research by Lion,[4] Young and Ismail,[5] and Wilson and coworkers[6] indicated that aerobic exercise reduced anxiety levels. Similarly, Jasnoski and associates[7] reported that regular aerobic exercise led to improved self-esteem.

These three psychological dimensions (depression, anxiety, and self-esteem) have been examined most; a sizeable body of research exists that indicates aerobic exercise reduces depression and anxiety and improves self-esteem in a wide range of adult populations. These three dimensions are also closely associated with America's third largest health problem—alcoholism. Researchers in the field of alcoholism report that alcoholics suffer from higher incidences of depression,[8] higher rates of anxiety,[9-11] and have poor self-esteem.[12-14]

Use of Aerobic Exercise to Treat Alcoholism

Intuition dictates that **regular aerobic exercise would be a useful adjunct to the treatment of alcoholism, yet traditional treatment generally focuses either on cognitive therapy (stressing education and control),[15] or spiritual development.[16]** Sources as august as Alcoholics Anonymous' *Big Book*[15] define alcoholism as a disease of body, mind, and spirit. Yet, to date, little research has been conducted on the role of aerobic fitness in the rehabilitation of alcoholics.

The few studies that have examined the role of physical fitness in the rehabilitation of alcoholics have been promising. Murphy[17] examined the effects of a 90-day exercise program on the fitness levels of 89 male alcoholics who had been hospitalized for treatment in a Veteran's Administration hospital. **Post-treatment data indicated that participants achieved levels of fitness similar to nonalcoholics of similar ages.** Tsukue and Shohoji[18] conducted a similar study with inpatient alcoholics in a Japanese hospital. As part of ward routine, 25 alcoholic patients played basketball 3 days per week for 10 months. Upon discharge they were more fit, had developed improved coordination, and experienced fewer neurological disturbances. **These studies indicate that alcoholics show the same positive physical changes as a result of regular aerobic exercise as do nonalcoholic populations.**

More important in this context, the studies cited above also indicated that **regular aerobic exercise can reduce the physical damage incurred as a result of prolonged alcohol abuse.** This alone would be sufficient to warrant the inclusion of a regular exercise program in the treatment plan of any alcoholic, whether he or she is an inpatient or an outpatient. **Perhaps as important to the alcoholic attempting to gain sobriety is the psychological improvements that occur as a result of regular aerobic exercise.** Frankel and Murphy[19] tested 214 male inpatient alcoholics at entry to and discharge from treatment using the Minnesota Multiphasic Personality Inventory (MMPI) and a series of physiologic measures. The tests were given 12 weeks apart. They revealed that **as physical fitness improved, MMPI scores also changed toward less psychopathology, with decreases in anxiety and depression showing the greatest changes.** In another study, Sinyor and coworkers[20] found that **inpatient alcoholics who were involved in a regular exercise** program while in treatment **had higher abstinence rates than nonexercisers** at another treatment center. If the goal of treatment is abstinence from mood-altering chemicals, then this study indicates that regular aerobic exercise—when incorporated as part of treatment—can help realize this goal.

Although the studies reviewed here certainly show promise, they raise many questions that would need to be addressed before a treatment center undertook the expense involved in establishing an exercise program or before an outpatient substance abuse counselor developed an exercise plan for everyone in his or her caseload. For example, **what type of exercise program would be most effective? How much exercise is needed to have an impact on physical and psychological functioning? How can one be sure that improvements in self-esteem and lower levels of anxiety and depression are a result of exercise and not other aspects of the treatment program?** We sought to answer these questions by carefully and rigorously designing a study with the best possible research methods.

Research Methods

We conducted the study at Fellowship Hall, a private nonprofit hospital for the treatment of alcoholism, located in Greensboro, NC. Fellowship Hall's treatment program is heavily influenced by the philosophy of Alcoholics Anonymous. A two-group pre/post design was used for the study. Control group data were gathered prior to beginning the exercise program. Members of the control group engaged in what appears to be standard at many treatment centers: during the hour or so a day reserved for recreation, some walked slowly around the grounds, others played pool, but most sat in the recreation room drinking coffee and talking or reading. Thirty-five patients admitted consecutively were used as the control group. Four subjects failed to complete pretesting and five were discharged before they completed the 28-day treatment program. Of

the remaining 26 subjects, seven were white women, two were black men, and 17 were white men. Their average age was 38.9 years.

After the last control group member was discharged, recruitment began for the exercise group. Thirty-nine patients admitted consecutively were included in the treatment group. Two failed to complete pretesting, five were discharged before completing treatment, four were dropped from the study because they did not exercise and one transferred to another facility. Of the 27 remaining subjects, nine where white women, two were black men, and 16 were white men. The average age was 35.6.

At admission and again at discharge, both groups were given the Zung Self-Rating Depression Scale (SDS),[21] the Spielberger State-Trait Anxiety Inventory (STAI),[22] the Tennessee Self-Concept Scale (TSCS),[23] and, for aerobic fitness level, the Astrand-Rhyming Stationary Bicycle Ergometer Test.[24]

The exercise program was composed of walking or jogging, depending on the participant's initial fitness level, and was carefully designed to meet the requirements for intensity, frequency, and duration as proposed by the American College of Sports Medicine.[25] In order to meet those requirements, participants had to exercise vigorously enough to raise their heart rate to between 60% and 80% of their estimated maximum heart rate. This range is computed by subtracting the participant's age from a maximum heart rate of 220 and computing 60% of that number as a lower target heart rate and 80% of that number for the upper target heart rate. Each exerciser was then trained to monitor his or her own heart rate to ensure proper intensity. **Intensity level is crucial if one is to derive maximum benefit from exercise.** A leisurely walk that does not raise the heart rate into the target range may be relaxing and even stress reducing, but it does not increase aerobic capacity. **Minimum frequency was three times per week, and duration began at 20 minutes and increased to between 25 and 30 minutes by discharge.** Each exercise session began and ended with 10 minutes of stretching.

T-Test Measures:

In order to be sure that the control group and exercise group were equivalent on pretest measures, a series of *t*-tests were conducted on state anxiety, trait anxiety, depression, self-concept, and estimated maximum oxygen uptake (VO_2 max). No significant differences were found on any of these measures; thus, group equivalency was assumed, and a multivariate *t*-test was conducted on post-test scores using the General Linear Model program of the Statistical Analysis System (SAS) computer package.[26] The multivariate *t*-test allowed for simultaneous testing of all five dependent measures with consideration of the interrelationship that existed among them.[27] Hotelling-Lawley trace, a special case of Wilks's lambda for two groups, was used to test for overall significance. This procedure produced a significant *F* ratio of 3.27, 5/44 degrees of freedom (df) ($p<.05$). This indicated that **there were significant differences between the performance of the control and exercise group on post-test measures.** In order to find out exactly what was different, we continued our analysis by examining the univariate *F* ratios for each variable. We found that **the exercise group had better scores on the SDS (i.e., were less depressed) and on the STAI (i.e., were less anxious) than were the nonexercise control group at discharge from treatment. The exercise group also had better self-concept scores as measured by the TSCS and their aerobic fitness level actually increased,** whereas the control group's level decreased, but neither of these were statistically significant.

Implications for Treatment

The findings of this study and the other studies reviewed indicate that **regular aerobic exercise could be a helpful part of alcoholism treatment.** The purpose of treatment is to help the alcoholic develop new, nondestructive, behavior patterns that will allow him or her to live comfortably as a nondrinker. The competent substance abuse counselor uses a variety of methods to equip the alcoholic with the skills needed to make these difficult behavioral changes. The patients in this study who participated in a mild exercise program for only a short time were, when discharged, less anxious and less depressed than were those who did not exercise; therefore, they should be better able to cope with post-discharge problems. Counselors in both inpatient and outpatient settings would serve their clients well by stressing the importance of aerobic exercise as part of any treatment plan.

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CURRICULUM CONSULTANTS

Daniel F. Crawford, PhD, CRC
Florence Curnutt, CRC
Donnelle I. Eagle, PhD, MEd
Frederic Flach, MD
Lloyd R. Goodwin Jr, PhD, CRC
Paul Leung, PhD, CRC
Keith M. Robinson, MD
Susan R. Sabelli, CRC, LRC

For more information, please call toll-free 1-800-367-2550.

Directions in Rehabilitation Counseling

VOLUME 5 • LESSON 2

Evaluating the Adolescent Substance Abuser

R. Jeremy A. Stowell, MD, FAPA

Dr. Stowell is Medical Director of Adolescent Programs, Virginia Beach Psychiatric Center, and is in private practice in Virginia Beach, VA.

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Donnelle I. Eargle, PhD, MEd
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Keith M. Robinson, MD
Susan R. Sabelli, CRC, LRC

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Editor's Note

When evaluating the adolescent substance abuser, it is important to understand how the biological, psychological, and sociological tasks of development faced by all adolescents affect the course of treatment. A thorough evaluation of the adolescent substance abuser must determine the cause(s) and extent of the substance abuse, prioritize treatment needs, and establish whether there is a concomitant psychiatric illness.

The author uses Kaminer's three-item operational definition of adolescent substance abuse that consists of objective use characteristics, symptomatic use behaviors, and areas of functional impairment associated with substance abuse. Dr. Stowell suggests that treatment for detected psychiatric disorders can begin, if symptoms persist, after 2 weeks of total abstinence from drugs and alcohol.

The author discusses the physiologic, behavioral, and psychological signs and symptoms of addiction that may be revealed in the evaluation of the substance-abusing adolescent. The stages of substance abuse are described, and approaches to the discussion of substance abuse between counselor and adolescent are suggested. Typical motivations for substance abuse include: alienation from parents, social ostracism, depression, academic failure, and/or sexual abuse.

If possible, evaluation of the adolescent substance abuser should include an interview with his or her parents. One of the most significant elements of the parental interview is the family history (including familial substance abuse and psychiatric disorders).

This lesson enumerates the guidelines for—and limitations of—outpatient treatment, and presents the indications for inpatient treatment. One of the advantages of inpatient treatment is environmental control, which can be particularly beneficial for treatment-resistant adolescents. Also, this lesson describes the application of various diagnostic tools to the inpatient setting, discusses the role of laboratory testing in the evaluation process, and suggests how such testing can be used as part of a treatment contract between the adolescent, counselor, and family.

Introduction

The past 30 years has witnessed a geometric increase in the use of substance abuse among adolescents and young adults in all parts of the United States. The dissemination of drugs has proceeded from adult users to child users as young as 7 and 8 years of age. Although **Bailey[1] has reported a general decline in child and adolescent substance abuse, the nigh numbers of young substance abusers and the types of drugs used continue to have alarming consequences.**

Psychoactive substance abuse must be placed in proper perspective with other major public health issues that affect children, adolescents, and their families. **Alcohol and drug use is associated with accidents, suicides, and psychiatric illness. It is also associated with a wide range of problems including teenage pregnancy, infant morbidity and mortality, family dysfunction and violence, crime, rising health-care costs, and general misery.** Therefore, it is critical to make the diagnosis early to expedite the processes of treatment and recovery. This lesson will address aspects of the evaluation and treatment of the substance-abusing adolescent.

Developmental Issues

When evaluating the substance-abusing adolescent, **it is important to consider the developmental issues—biological, psychological, and sociological—that are involved for the adolescent and his or her family.** Adolescent development is characterized by rapid growth and sexual maturation as well as cognitive development (beginning to think in abstract terms). A shift from dependence on adults (particularly parents) to peers occurs and is accompanied by a strong identification with the peer group. A key developmental issue in this period involves exploration of values and lifestyles; this phase is often characterized by intense confusion about central identity issues. To summarize, the issues include:

- **Adapting to physical growth and hormonal changes**
- **Separating and individuating from parents**
- **Attaining adult cognitive development** and abstraction
- **Developing a sexual identity** and achieving aspects of intimacy; developing sexual relationships
- **Further developing the ego, superego, and ego-ideal**
- **Preparing for further educational and vocational goals**

Abuse of substances on a regular basis may produce a delay, disruption, or even arrest of these developmental tasks in adolescents. This perspective is critical in the overall evaluation of the substance-abusing adolescent.

Overview of the Evaluation

Evaluation of the substance-abusing adolescent is often complicated by the fact that many psychiatric and substance-use disorders may be nonspecific and nondiagnostic.[2] One concern is that treatment could begin before all diagnoses are made, thereby leading to the lack of adequate treatment and relapse of both the substance abuse and the psychiatric disorder.[3] **A thorough evaluation is important to determine which problems are most central to the cause of and perpetuation of the substance abuse.[4]** The heterogeneity of dual diagnosis clients is not surprising when one considers the multiple combinations of substance-abuse disorders and psychiatric illnesses.[5,6]

A thorough and structured evaluation of the adolescent substance abuser reveals the treatment needs and determines the treatment priorities. An excellent guideline in the diagnostic process of adolescents and their parents has been developed by Ayers.[7] **Evaluation also involves a decision about the appropriate level of care.** There are special patient placement criteria for the treatment of psychoactive substance-use disorders in adolescents that are available from the American Society of Addiction Medicine (12 West 21 Street, New York NY 10011).

Diagnosis of Adolescent Substance Abuse

No researched or validated classification system for adolescent substance abuse and dependence currently exists. One can use criteria from the latest edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM), but the particular value of DSM criteria for *adolescent* substance abuse and dependence has not been established. It is not necessarily true that a valid diagnostic system for adult substance abuse would be equally useful for adolescents. Regarding **the current operational definitions and diagnosis of adolescent substance abuse, Kaminer[4] offers the following criteria:**

- **Objective use characteristics such as quantity and frequency** as defined by the National Institute of Alcohol Abuse and Alcoholism. This includes drinking to the point of being drunk six or more times per year.
- **Symptomatic use behaviors such as intoxication, blackouts, etc.**
- **Areas of functional impairment** presumed to be caused by substance abuse that occurs at least twice per year and are considered to be part of the substance-abuse syndrome. **These may include impaired relationships** with family, peers, or teachers, and problems with school, police, or driving after drinking.

Outpatient Evaluation

A structured clinical interview with the parents and a diagnostic interview of the adolescent are needed in most cases. The evaluator is charged with making an assessment of the substance use and the psychiatric diagnoses followed by appropriate recommendations. One of the first questions must be, "Is there a drug-abuse problem?" If the client has been using drugs only on an experimental basis and there is no indication of substance abuse, it is likely that some form of substance-abuse education can be useful. Abuse has progressed in many instances, and there are elements of the addictive process. **It is important to look for elements of addiction such as:**

- **Compulsion**
- **Loss of control**
- **Continued use despite adverse consequences**

Signs and Symptoms

The adolescent substance abuser displays numerous signs and symptoms indicative of substance-abuse problems (Table 1). **Physical evidence includes staggering, the smell of alcohol or marijuana, complaints of nausea or vomiting, glassy or bloodshot eyes, problems with coordination, slurred speech, and/or notable changes in appearance.**

Use of **depressants such as alcohol** is often **manifest in staggering, slurred speech, dilation of pupils, concentration difficulties, and sleepiness. Regular marijuana use often results in red eyes, time distortion, change in appetite, memory impairment (especially recent), chronic cough and chest pain, fatigue, sleep disturbance, menstrual irregularities, diminished hygiene, and a general decline of performance in most areas as the drug use progresses.**

Stimulants such as cocaine and amphetamines generally provoke excessive activity, over-excitement,

Table 1
Effects of Psychoactive Substances

Drug	*Signs*
Depressants (e.g., alcohol)	Staggering, slurred speech, pupil dilation, concentration difficulties, sleepiness
Marijuana	Red eyes, time distortion, change in appetite, memory impairment, chronic cough/chest pain, fatigue, sleep disturbance, menstrual irregularities, diminished hygiene
Stimulants (e.g., cocaine, amphetamines)	Excessive activity, over-excitement, euphoria, loquaciousness, aggression, paranoia, pupil dilation, decreased appetite, increased blood pressure and heart rate, irregular breathing, sweating, tremulousness
Inhalants	Smell of the inhalant, excess nasal secretion, watering of eyes, staggering, drowsiness, altered cognitive abilities

euphoria, talkativeness, aggression, and paranoia. Physical evidence includes pupil dilation, decreased appetite, increased blood pressure and pulse rate.

Hallucinogens such as **LSD and PCP tend to produce hypertension (elevated blood pressure), and tachycardia (rapid heart rate), irregular breathing, sweating, and tremulousness of the hands.** The hallucinogen abuser may evidence changes in hearing, touching, smelling, and seeing.

Inhalants may produce notable physical changes such as the strong smell of the odor particular to the inhalant, excess nasal secretion, watering of the eyes, difficulty with staggering or drowsiness, and/or slurred speech. These adolescents also generally demonstrate **altered cognitive perceptions and abilities.**

Adolescent substance abusers typically manifest **marked disruptive behaviors** such as: **refusal to follow rules and guidelines; disciplinary problems in school; outbursts of abusive language; irresponsibility in relationships at home and school; fighting; negative attention getting; and a dramatic increase in negative mood states (e.g., nervousness and depression). A social shift is common from family orientation to orientation with drug-using peers, accompanied by secrecy and dishonesty.**

Stages of Adolescent Substance Abuse

Adolescent substance abuse can be viewed as progressing through three stages: an early phase, a middle phase, and a late phase. **The early stage is characterized by occasional drug use** during the weekends and with friends. Toward the end of this phase, **preoccupation with drug use grows and peer pressure increases.**

As the adolescent becomes more tolerant of the drug, physical and psychological dependence increase, preoccupation with drug use escalates, and socializing with drug-using friends occurs more often. This **middle phase is often characterized by the onset of memory blackouts as well as the use of multiple types of drugs.** During this phase, school and work performance decrease, and the adolescent may drop out of sports and nonessential activities. He or she may begin to spend more money on drugs, and may steal and lie to obtain them. **Moreover, an increase in psychiatric symptoms such as depression and suicidal ideation is not unusual during this stage.** By this point, attempts to limit alcohol and other drug consumption—or to quit altogether—have been unsuccessful.

In the late stage, the adolescent is completely absorbed in drugs. Participation in school and extracurricular activities is minimal, and the adolescent is unable to be honest with himself or herself, or with others. **There is often a notable worsening of the sleep process, accompanied by physical deterioration and increasing black-outs from use of alcohol or other drugs.** During outpatient evaluation, it is useful to determine what level of care will be needed to treat the abuse problem. Clinical experience and use of specific placement criteria can lead to the correct decision.

Interviewing the Parents

As a routine part of the evaluation, the adolescent's parents should be interviewed, because they **can provide important information about the adolescent's premorbid functioning and personality.** Furthermore, this interview often presents an excellent opportunity to discuss behavioral issues and preexisting psychiatric disorders. **Structured data collection in the following areas is essential:**

- **Developmental history**
- **Educational history**
- **Family history**, including parental use of substances and extended family data on substance use and psychiatric disorders
- **Marital history**
- **Medical history**
- **Social history**
- **Substance-use history**

Interestingly enough, **parents are able to provide specific information about their child's drug use**—for

example, the type of paraphernalia being used. However, given that the illness is based on denial, secrets, and lies, **parents may not be able to provide much information regarding the *extent* of the drug abuse.**

It is useful to **question the parents about symptoms such as violence, temper tantrums, oppositional behavior, severe mood swings, psychotic symptoms, suicidal statements, suicidal behaviors, and possible suicide attempts (including drug overdose).** Should the interview with the parents reveal imminent danger to the adolescent (suicidal risk), inpatient treatment must be considered seriously.

A difficult area of exploration with parents is their own use of substances and substance use in their families of origin. This can be a delicate matter because **the parental denial system may be quite powerful, and the parents may become so emotionally reactive that they pull themselves and their adolescent away from the evaluation process.** Because the literature has indicated a strong correlation between family histories of drug abuse and adolescent problems,[9] it is critical to uncover any history of family substance abuse.

In the parental interview, it is also important for the counselor to listen for other signs of substance-abuse problems. For example, **the parents may report that their son or daughter is failing in school, exhibits delinquent behavior, has few friends, is overtly aggressive toward siblings or peers, has withdrawn from peers, or has somatic symptoms such as stomach pain or headaches.** These adolescents are often depressed, angry, confused, anxious, and have significant problems in close relationships.

One area that is under-evaluated and under-reported is the frequent presence of psychiatric disorders in the parents themselves. The parents should be asked about emotional and psychological disturbances that they may have been experiencing. The counselor should also inquire about the extended family history of depression, substance abuse, and other psychiatric disorders. **The parents' responses may suggest the possibility of certain biogenetic disorders that could predispose the adolescent to substance abuse or comorbid psychiatric disturbances.**

Parents should be asked about any prior treatment approaches used by their son or daughter. This may include multiple clinical treatment efforts and their own efforts in the home setting, as well as possible court intervention. It is important to understand what leverage can be used to help the adolescent obtain treatment. **By the end of the interview, it is absolutely essential for the counselor to understand the degree of family support available** so that treatment can be planned accordingly.

Interviewing the Adolescent

In the adolescent diagnostic interview, **the first step is to establish rapport and initiate the therapeutic relationship.** It may be useful to allow part of the interview to be unstructured so that the adolescent may present personal concerns and issues about himself or herself and his or her family. Then, the counselor should try to obtain specific material regarding:

- **The relationship of the adolescent to each parent, step-parent, siblings, and others living in the home**
- The adolescent's **friends and social activities**
- **Problem behaviors** such as stealing, running away, truancy
- The **emotional life of the adolescent**—primary emotional states (anger, depression, anxiety) associated with the present illness
- Information about **painful traumatic memories** such as being abused physically, emotionally, or sexually
- **Developmental areas**
- **A detailed substance-use history**
- Detailed **counseling experiences** as well as efforts at substance-abuse intervention
- Detailed information about **peer associations** (Oetting and Swain[10] have emphasized the significant role played by peer associations in adolescent substance abuse)

The adolescent's interview may reveal various possible **areas of motivation for substance abuse** based on the adolescent's own experience. These might include:

- Severely painful emotions, especially those associated with suicide
- School failure
- A negative drug experience
- Social ostracism
- Alienation from parents

In some cases, drug involvement may have become so severe that the adolescent has resorted to selling drugs, stealing, or prostitution. The income from these sources may not be sufficient to cover the expenses of a heavy drug habit; and drug-abusing adolescents may owe significant amounts of money to their suppliers. Sometimes, an adolescent agrees to be evaluated and to enter treatment because he or she is receiving threats from drug dealers or other external sources of pressure. **The adolescent is occasionally given the choice between going to court or receiving treatment.**

Laboratory Testing

A thorough evaluation should include comprehensive laboratory data. This includes a complete blood count, blood chemistry, pregnancy test in young women, and a urine or serum drug screen, and possibly a hepatitis-B profile. Testing for acquired immunodeficiency syndrome (AIDS) may also be advisable if exposure to this virus is suspected. The urine test should be supervised and observed. In addition, the counselor should have first-hand knowledge of the laboratory values and various cut-off points for the blood and urine specimens for the drugs in question.

Limits of Outpatient Evaluation

There may be significant limitations in the outpatient evaluation and treatment of adolescent substance abusers. For instance, **clinical intervention may be frustrated by defensive denial on the part of the adolescent and/or the parent(s).** Due to the limited number of cross-sectional evaluations that may be performed (usually no more than two per week), **significant clinical issues may be hidden from the examiner and the parents.** These may include ongoing drug use that is not detectable in the usual urine drug screen (e.g., LSD, anabolic steroids, inhalants), severe underlying depression and suicidal risk, and other self-destructive patterns that are not evident in cross-sectional evaluation time frame.

INDICATIONS FOR INPATIENT TREATMENT:

A primary consideration for employing inpatient treatment is the failure of outpatient treatment to improve the clinical conditions of the adolescent. Admission criteria for inpatient treatment of adolescents **involve the risk of withdrawal syndrome being present** as evidenced by history of current severe alcohol abuse or other drug use. **In addition, there may be impaired neuropsychiatric function** as evidenced by severe depression, altered mental status (with or without delirium), hallucinations, toxic psychosis, extreme emotionality, volatility of behavior, and violence.

Inpatient treatment is also indicated when the adolescent has biomedical conditions and complications (e.g., diabetes, asthma, infections). Inpatient treatment **should be considered if the substance abuse complicates or exacerbates a previously diagnosed medical condition.**

Other considerations of inpatient treatment are **emotional and behavioral conditions that require acute intervention.** These conditions will reflect significant impairment in social, interpersonal, educational, and occupational functioning. Specifically, there is often a **failure to maintain behavioral stability for more than a few hours at a time** with associated poor impulse control and judgment. Recurrent suicidal ideation or risk of harm to others is often present in these adolescents.

Inpatient treatment should also be considered when **the potential for relapse is severe and when the patient is experiencing intensification of addiction symptomatology despite use of current treatment interventions**

at that particular level of care. Naturally, inpatient treatment should be considered when the person is unable to remain alcohol- and drug-free long enough to benefit from treatment at the current level of care.

The recovery environment itself may be such that the severity of family conflicts precludes recovery for the patient. There may be physical, emotional, or sexual abuse that prohibits safe treatment on an outpatient basis. Also, there are times when the parents or legal guardians are unable to provide consistent supervision or participation necessary to support treatment at the current level of care.

The very real possibility of suicide among adolescent substance abusers is another indication for inpatient treatment. At least three separate studies[11-13] have concluded that loss of control over drug use was often a precipitant for a suicide attempt. It is important to understand that **a suicide attempt in a substance-abusing adolescent is much more likely to result in death than it would be for adolescents who suffer with depression or mania but who do not have a substance-abuse disorder.**[14] Inpatient treatment for substance abuse is used most often for adolescents who have displayed violent and antisocial behaviors.

Detoxification and withdrawal, though infrequent in adolescent patients, is still an important consideration for inpatient treatment. **Drugs associated with a withdrawal syndrome may include alcohol, nicotine, opiates, and tranquilizers. Cocaine withdrawal frequently precipitates paranoia and depression during the intoxication and detoxification periods.** Inpatient care is also indicated when the adolescent **displays acute psychotic symptoms secondary to drug use, has been severely sexually traumatized,** or **is living in an environment with other substance abusers.**

In the event that inpatient treatment is selected, **a full explanation should be given to the adolescent about the nature of hospitalization and an agreement reached on how this will be accomplished.** There are cases in which the adolescent might be quite resistant to being hospitalized, and this will require one or both parents and the substance abuse professional to exert appropriate pressure to have the adolescent enter the hospital environment. **It is often useful to inform a hospital intake team of the adolescent's impending arrival and arrange to accompany the adolescent to the unit.** Moreover, it is important to stress to the parents that strong measures are sometimes necessary to achieve hospitalization—but it may save the adolescent's life.

Inpatient Evaluation

Inpatient evaluation can lead to a complete diagnostic profile due to the added structure and resources available at this level of care. **Increased level of safety is a major advantage of inpatient care.** That is, risk of relapse and risk that consequences will be realized from suicidal or violent behaviors are decreased.

Even though much information may already have been gathered from the adolescent and parents in an outpatient evaluation, it is important to review the data again in detail. Often, for instance, **under the stress of initial outpatient evaluation, parents may omit important details. Careful medical and psychiatric reviews will often reveal illnesses that preceded the substance abuse and have contributed to it.** At the inpatient level of care, it is possible to gather information rapidly from all sources in an effort to formulate the initial treatment plan. For example, the adolescent's school may report learning disabilities, disruptive behaviors, further evidence of substance abuse, peer difficulties, and other important information.

ASSESSMENT TOOLS:

Intensive interviewing of the adolescent in both the psychiatric and substance-use areas will help develop a complete treatment plan. There are various instruments that can be used to assess drug abuse and dependence; one such measure is the **Personal Experience Inventory (PEI)** developed by Winters and Henley.[15] **This comprehensive inventory measures the adolescent's involvement with drugs and alcohol; assesses the frequency, duration, and history of drug abuse; and evaluates**

personality characteristics and environmental circumstances of the adolescent drug abuser. Other diagnostic instruments developed recently focus primarily on psychiatric diagnoses. These instruments include the Diagnostic Interview for Children and Adolescents (DICA) and the Diagnostic Interview Schedule for Children (DISC) and also the children's version of the Schedule for Affective Disorders and Schizophrenia (SADS).

Tarter[16] has recently presented a procedure for systematically evaluating and treating adolescents with known or suspected substance abuse. This method employs a decision-tree approach; 10 domains are incorporated in the **Drug Use Screening Inventory (DUSI). The DUSI can be administered in individual or group settings, and can identify medical and psychiatric disturbances as well as psychosocial maladjustments that are frequently concomitant to drug use in adolescents.** The domains are:

- **Substance use behavior**
- **Behavior patterns**
- **Health status**
- **Psychiatric disorders**
- **Social skills**
- **Family system**
- **School**
- **Work**
- **Peer relationships**
- **Leisure and recreation**

Yet another instrument is the Substance Use Disorder Diagnostic Schedule (SUDDS) developed by Norman Hoffman and Patricia Harrison.[17] Finally, Kaminer, Bukstein, and Tarter have been developing the Teen Addiction Severity Index (TASI).[18,19]

ENVIRONMENTAL CONTROL:

At the inpatient level of treatment, it is possible to do much with environmental control, including the prevention of drug use and unsafe behaviors of other types. **Treatment-resistant adolescents often act-out regressively. In these cases, environmental control can provide necessary structure.** It is recommended that a thorough behavior modification system be enforced on the adolescent unit.

The Contract

Following the evaluation and/or the initial treatment sessions, it is important to review the findings and recommendations with the adolescent and his or her parents. **At this point in outpatient treatment or at the end of inpatient treatment, a written contract is useful.** Elements of such a contract might include:

- **Total abstinence** from any alcohol or mind-altering drugs
- **Supervised urine drug screens** once or twice per week on an unannounced basis
- **Attendance at outpatient treatment sessions for both the adolescent and family members** unless there is an emergency
- **Attendance at 12-step recovery meetings** (Alcoholics Anonymous, Narcotics Anonymous, Cocaine Anonymous), with a frequency recommended by the counselor
- **Specific "home" guidelines** for the adolescent including curfew, choice of friends and activities, regular participation in family activities, study scheduling, and participation in household chores
- An **agreement by the adolescent and his or her parents to consider immediate intervention and/or increased frequency of treatment, including inpatient treatment, if any of the above conditions are not complied with** or if there is a contaminated urine sample

Conclusion

This lesson has focused on multiple considerations in the evaluation of the adolescent substance abuser. The evaluation itself is a crucial part of the beginning of treatment. Therefore, the quality of treatment rests in the thoroughness of the evaluation and the recommendations that follow from it.

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For more information on the Drug Use Screening Inventory (DUSI) and Tarter's decision-tree approach for treating substance abuse:
A lesson on these subjects is available from *Directions in Substance Abuse Counseling*.

"An Integrative Approach for the Evaluation and Treatment of Alcohol and Drug Abuse," by Ralph E. Tarter, PhD, Professor of Psychiatry and Neurology, University of Pittsburgh [PA] Medical School; and Director, Center for Education and Drug Abuse Research (CEDAR).

[Tarter RE. An integrative approach for the evaluation and treatment of alcohol and drug abuse. *Dir Subst Abuse Counsel*. 1993;1(1).]

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QUESTIONS BASED ON THIS LESSON

5. Physical signs and symptoms of cocaine use include all but which of the following?

   A. Hypertension (elevated blood pressure)

   B. Pupil dilation

   C. Depression

   D. Decreased appetite

6. When interviewing parents of adolescent substance abusers, it is important to obtain a family history of substance abuse because:

   A. If the parents are alcoholics, the adolescent's condition is genetic; and, therefore, no treatment is possible

   B. Deciding who is to blame for the substance abuse is generally the most useful part of the evaluation process

   C. Research has indicated a strong correlation between family histories of drug abuse and adolescent substance abuse

   D. Family therapy is the only effective treatment available for addiction

7. Which of the following statements regarding the adolescent diagnostic interview is *false*?

   A. The counselor should avoid obtaining information about the relationship between the adolescent and each parent, because such relationships are typically painful...and dwelling on them may impede treatment

   B. The first step is to establish rapport and initiate the therapeutic relationship

   C. It may be useful to allow part of the interview to be unstructured

   D. The interview may reveal possible areas of motivation for substance abuse

8. According to the author, which of the following is a reason for pursuing inpatient treatment for adolescent substance abusers?

   A. Outpatient treatment has failed to improve the clinical conditions of the patient

   B. The substance abuse begins to exacerbate a previously diagnosed medical condition

   C. Risk of suicide exists

   D. All of the above

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VOLUME 5 • LESSON 3

A Constructive Developmental Perspective on Career Counseling

Garrett McAuliffe, PhD

Dr. McAuliffe is Assistant Professor of Counselor Education at Old Dominion University, Norfolk, VA.

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EDITOR'S NOTE

How a client views himself or herself in relationship to his or her career can have a profound impact not only in terms of on-the-job attitude, but also in terms of his or her ability to adapt to career changes. A static view of career counseling attempts to match a client's demonstrated traits with similar factors in occupations. However, because it has become increasingly apparent throughout the course of the past decade that one can no longer expect to give lifelong service to one particular company or even to one career, newer career phase theories have emerged.

As the author explains, the framework of most of these newer theories—although they do reflect this fundamental shift in how we view career—do not consider the cognitive processes that underlie the process of choosing a career and managing the challenge of staying flexible whenever internal needs and external pressures necessitate career shifts. Using the constructive developmental theory of Robert Kegan as a basis for explaining how career goals are chosen, the author describes how a client's meaning-making strategies contribute significantly to his or her ability to adapt to career change or respond to new opportunities. In addition, he shows how Kegan's three "balances"—interpersonal, institutional, and interindividual—provide a framework for understanding the mechanisms that influence the client's choices; the author then suggests strategies for guiding the client toward a more flexible ("interindividual") perspective that will allow him or her to cope more adequately with career stress.

The advent of the "Information Age" gives every indication that job opportunities will be changing radically over the next several years, and nowhere is this more applicable than for persons with disabilities. Disabled clients, then, probably have the most to gain from a changing job climate wherein their physical limitations are less and less important. Although the author does not specifically address issues confronted by this population, it seems that the current orientation of many disabled clients is to search for a (static) career that is consistent with their particular abilities. It is imperative for rehabilitation counselors to understand how underlying cognitive processes such as those described in this lesson can either facilitate or hinder the client's ability to make these adaptations. Counselors will then be better equipped to help the client attain a flexible perspective that will allow him or her to take advantage of new opportunities.

Introduction

The notion of career has been defined in recent years as **a lifelong series of choices that persons make in order to express their changing needs**. Consistent with this trend, current theories describe career in terms of the sequential phases through which all workers pass.

This dynamic understanding of career has replaced the static conception that had been a legacy of the trait-factor dominated counseling approach. In the static view, career choice was seen as a relatively fixed, on-time decision, usually made in late adolescence or early adulthood. Trait-factor oriented counselors merely attempted to match the individual's characteristics (traits) with equivalent conditions (factors) in occupations. A good lifetime career match was the goal for this type of counseling. However, when it was discovered that career change was more the norm than the exception, simple matching theory was no longer adequate.

Newer descriptions of career phases can help counselors and clients identify tasks that promote successful adaptation throughout life. However, **although most career-phase theories name the typical tasks and issues that characterize each phase, they do not generally explain the cognitive processes** that enhance or diminish a person's ability to manage the challenges of a career. On the other hand, emerging **cognitive theories of adult development** are **grounded in the description of the "knowledge structures" and "meaning-making balances." These were posited by Piaget[1] and define approaches to problem solving**.

This lesson will explore the career counseling implications of one cognitive developmental theory in particular—the constructive developmental theory of Robert Kegan.[2] Kegan's theory is perhaps the most comprehensive, broadly applicable explanation of personality development available. Unlike theories that restrict themselves to the moral or educational domains, Kegan's theory applies to the full range of human endeavors, including family relationships, leadership, and, in this case, career. From this perspective, **a client's meaning-making framework, or constructive developmental stage, contributes significantly to his or her ability to adapt to career challenges**.

Constructive Development

Kegan's constructive developmental theory is perhaps the most inclusive of the cognitive-developmental theories. It **explains how the self constructs meaning across the affective, cognitive, and moral domains**. Kegan describes development as a "meaning-constitutive activity"; i.e., **as people move through what are variously called "stages" or "balances in subject-object relations," they achieve more expansive, inclusive understandings of themselves and the world**. In Kegan's terms, constructive development is a succession of qualitative differentiations of the self from the world, or seeing oneself as distinct from the world. At each succeeding stage, the person is able to include more of the world as "object." Each constructive developmental stage is a successive triumph of "relationship to" other things in the world rather than "embeddedness in" the world.

Kegan suggests that **three such structures** that characterize most adults' meaning construction: (1) The interpersonal balance; (2) the institutional balance; and (3) the interindividual balance. It should be noted, however, that **most persons' meaning-making is not likely to be fully characterized by one balance; rather, it is likely to have characteristics of two balances, with one predominating**.

THE INTERPERSONAL BALANCE:

The interpersonal balance is typical of most adolescents and some adults. Those who make meaning from the interpersonal perspective are **embedded in their relationships with others**; they cannot generate a perspective outside the relationships in which they live. As such, the interpersonally embedded client is "pieced out" to his or her reference groups—peers, parents, and politi-

cal and religious groups. **In the interpersonal balance, one might say, "I *am* my relationships," rather than, "I have relationships." Rather than embarking on an authentic quest to express who he or she is, the interpersonally balanced client searches for the path of least resistance**—the one that has been well travelled and/or highly recommended, perhaps by his or her family or peers. The interpersonal self is not individuated sufficiently to possess a coherent identity.

Although basic research on this relatively new theory is still underway, two studies[3,4] found **between 45% and 53% of persons over the age of 21 to make meaning largely from the interpersonal balance. It follows that many of these persons make career choices based on unquestioned assumptions about the appropriate fields and roles for someone in their reference group—be it family, ethnicity, class, or religious group.**

The blind allegiance of the interpersonal balance can have unfortunate consequences. For example, a 30-year-old female client insisted to her counselor that she enroll in a demanding computer training program, despite a seeming lack of aptitude in that area, because her family members had recommended that field. One year later, after she found herself on academic probation, she was helped by her counselor to act on her own voice, which called her to early childhood work. Such is the power and the danger of operating within the interpersonal balance.

THE INSTITUTIONAL BALANCE:

As can be seen from the example above, **the limits of the interpersonal balance are reached if the environment challenges the client to generate a point of view**. For many people, college provides such an environment, one in which the conflicting voices of professors, peers, parents, and others become a cacophony. The only escape from such an environment is finding a center in oneself, a place where **the self can be first discovered, and then expressed, through opinions, ideologies, and, most important, career goals**.

The institutional self's strength lies in its abilities to identify its own purposes and articulate a position independently; i.e., to run itself as a somewhat fixed institution. The institutionally balanced client typically **pursues a career singlemindedly** and is intent on being "a force to be reckoned with." This self-authored voice allows one to **speak from one's own center, to discover new and old needs, values, and interests, and ultimately to act in a relatively autonomous fashion**. As a client once said, "I used to try to be whatever I thought was the right way to be—which was what my family had communicated. That cut me off from the creative, expressive me I'm now letting out!" The refrain of the institutional balance might be, "You can't please everyone, so you've got to please yourself."

Although the independent, self-assertive mode of the institutional balance is a triumph over the stifling externality of interpersonalism, it can also be a **powerful limitation**; in the institutional balance, **the person lacks the capacity for self-correction and reflection on the fundamental purposes of the forms** (e.g., occupation, other life roles, political or religious affiliations) **that express those purposes**.

In essence, a client who operates from the institutional perspective declares, **"I *am* my occupation" rather than, "I have an occupation."** This identification limits the client to making the continued maintenance of the self as an institution the very goal of the institutional self; self-perpetuation in a current form (e.g. "secretary," "electrician," "homemaker") thus becomes an end in itself. **In the institutional balance, the authentic career quest can be stymied by the client's rigidity by being closed to new expressions of the self. This embeddedness in the particular life role, or the "form" one has taken, does not allow either for self-correction or for the understanding that one's career quest should be undertaken with respect to the larger purposes (e.g., principles, values) of which career is merely a present expression.**

Such blindness to one's larger potentials can result in career distress until a more flexible balance is

achieved. For example, one of my clients, Ken, had singlemindedly pursued a retail sales career for which he was poorly suited. Ken had been let go twice for being ineffective at selling. However, he continued his pursuit because, in his words, "I've always thought of myself as a salesperson in a retail setting. It's what I've always been." **In his institutional embeddedness, Ken was thoroughly identified with the form** (the retail sales role) **rather than with larger purposes that had been hidden** by the blind adherence to a questionable goal. Through counseling, Ken was able to reflect on his larger values and to recognize his actual abilities, which were better suited to technical vocations. His personal revolution resulted in successful entry into computer repair work and also in a broader perspective for the future on his evolving self.

THE INTERINDIVIDUAL BALANCE:

As the case of Ken illustrates, development beyond the institutional balance can be described as movement in which the self no longer *is* its particular form but instead *has* forms and is "more committed to culturing a process than preserving a product." **The interindividual balance is characterized by openness to new information that may challenge the form (e.g., occupation) that one may have already accepted. In the interindividual balance, any predetermined orientation to conflict and information is transcended, allowing the client to hear dissonant voices and *invite* contradiction, as opposed to preserving its own coherence at all cost.**

Similarly, Basseches[5] proposes that **"dialectical thinking," which is characterized by openness to contradiction and flexible movement through particular forms, is a major asset in negotiating life choices and transitions** because **it gives people the greatest number of options for responding to their internal needs and the external environment**. According to Kegan, **the interindividual balance similarly allows people to be self-transforming**—open to new expressions of their yearnings and responsive to internal and external reports on their performance, their likes, their impact on others, and their changing needs. **Such flexibility makes the interindividual balance appealing as a framework from which to manage career transition.**

The interindividual balance may be especially advantageous for negotiating adult redefinitions of self, as in mid-life and beyond, because it is characterized by self-reflectiveness, the welcoming of contradictions, and acceptance of incompleteness. Fortunately, Ken was counseled to question the necessity of his being a salesperson and, more significantly, to rethink the limiting, relatively fixed way that he was making meaning in general. As he was challenged to broaden his occupational identity, he began to step—tentatively and fearfully—in new directions, as evidenced by a return to technical work and even consideration of a computer design career.

Increasing Adequacy and Development

Each of the aforementioned balances is succeedingly more adequate for confronting the lack of stability inherent in career and for being responsive to change. The interpersonally balanced client cannot easily act on internal cues to make changes; in fact, he or she cannot even identify a self from which to speak. Similarly, although those in the institutional balance do pursue a self-authored track, they can easily get stuck on a one-way, narrow path and are unable to hear negative reports, both internal and external; therefore, they may be incapable of imagining options beyond those boundaries.

In contrast, **the person in the interindividual balance has an advantage in facing transitions, in making minor or major career shifts, in redefining the self, and in accommodating to the sometimes-dissonant reports of the world**. This person seeks out newness and contradiction, and thus is ready for the discovery of new paths or the transformations that the career quest inevitably requires. In this way, **each developmental balance is**

more adaptive in that it allows more information to be included in the resolution of career dilemmas.

From the constructive developmental perspective, the manner in which persons address career concerns will vary according to the epistemologic framework from which the person speaks. The person who is operating from an interpersonal balance wonders, "What does my community, my family, my ethnic or religious group expect of me?" and the person with an institutional perspective asks, "How do I maintain the current form I am in?" In contrast, **the central career questions for the interindividual perspective are, "Who am I becoming?" and, "How shall I express this emerging self?"** For many adults, the interindividual perspective can provide the readiness to **redefine the self** in more comprehensive ways. This perspective may be particularly important for addressing the changes in meaning in adulthood that may happen at mid-career or at other times.

Counseling for Transition and Transformation

Counseling strategies based on a constructive-developmental perspective will depend on the nature of the change that is mandated. A career dilemma may trigger either simple transition, such as a job change, or personal transformation—a substantial shift in the very definition of one's self. For example, Ken experienced both transition and transformation in his occupational change from retail work to computer repair work. His transformation was exemplified in his statement that "I always thought it was necessary to be certain and committed, even singleminded, in my ambitions. In the process, I ignored my own doubts, couldn't hear others' voices, and left out significant dimensions of myself." **Counselors can help with transition and transformation if they are able to assess a client's current dominant meaning-making framework and then provide a challenging yet supportive environment for change.**

Assessing Constructive Development

Assessment of the client's meaning-making system, or developmental level, is a task of the early phase of developmentally oriented career counseling. The goal of such assessment is to **determine whether constructive transformation or, alternatively, surface adjustments within a particular constructive developmental stage should be addressed**. However, it should be noted that **seemingly superficial change can also be an opportunity for constructive development**. As developmentally alert counselors establish a relationship with the client, they can assess the client's current balance from informal interview data or by means of the subject-object interview. Questions such as, "What would be your cost in changing fields?" or, "How do you know that this is the right decision for you?" evoke constructive developmental information. **Clues such as reliance on outside sources for approval (the interpersonal) or a singular, closed pursuit of a career goal (the institutional) may indicate the current dominant meaning-making framework.**

Defining the Counseling Objective

There may be cases in which simple transition from one occupational role to another seems most appropriate. For example, if a 20-year-old client seems to recognize and act on her own needs (a quality of the institutional balance) or if the potential mid-life career changer reveals a flexible definition of self (an element of the interindividual balance), **occupational change should be the focus of counseling. Such transition might be effectuated with a combination of reflective clarification, information giving, encouragement, and use of a rational decision-making strategy.**

In contrast, when the meaning-making system seems to be inadequate to the transition task, the

counselor should help clients discover "what they don't know they don't know." The client may need to be guided to powerful learning experiences that are transforming, to change not just what is known, but *how* he or she knows. Clients frequently come to counselors with stirrings of personal revolutions and sometimes ideas of how transformation might occur, however inarticulate these may be. In such cases, it is the counselor's challenge to assist clients in their transformations of meaning-making.

When transformation is required, the career counselor's job is more than that of an information provider whose aim might be to help the client accumulate more knowledge about self and the world. **In many cases, both transition and transformation can be blended**, as counselor and client set tentative goals of both rethinking the client's usual way of making meaning (for transformation) and exploring information about the self and occupations (for transition).

A Framework for Transition and Transformation

The counselor might use **Loder's framework of five "moments" in personal transformation**[7] as a guide for simple change or for the reconstruction of meaning. In Loder's model, **the counselor encourages the client to experience five "transforming moments"**:

- **Conscious conflict**—facing dissatisfactions and dilemmas squarely
- **Pause**—giving time and energy to the implications of the conflict
- **Image**—vividly experiencing the implications of the conflict in a new or renewed commitment
- **Repatterning**—fleshing out the image
- **Interpretation**—acting on the decision

The focus of Loder's model on conflict holding is consistent with the disequilibration that Piaget suggests is central to developmental change. Illustrations of constructive-developmental career counseling in two adult stages follow.

TRANSFORMATION FROM THE INTERPERSONAL BALANCE:

In the interpersonal balance, **the counselor's challenge is to ask relationship-embedded clients to make their own new career meanings**. Activities that promote movement from the interpersonal to the institutional balance are accomplished by the counselor's challenging the client to **discover and act on information about the self**. **Such discovery might be triggered by various self-exploration activities,** in which the client is asked to consider and generate the implications of his or her abilities, interests, and values. **The counselor should highlight contradictions between self-assessed needs and the person's current life roles and activities**. In these ways, stage-embedded assumptions about who is in charge of career can be challenged.

For example, for the young adult college student whose seemingly simple dilemma is to choose between pursuing a parent-approved premedical track or to consider the internal voice that draws her to the social sciences, **counseling would operate on two levels: one to weigh the pros and cons of various fields of study, and the other to support and challenge the person so that the tacit assumptions about "who's in charge" become conscious**. A counselor who restricts his or her focus to psychosocial issues in this case might only emphasize the exploratory trying-on of occupations and the seeking of appropriate information. If the client were left with meaning derived from other sources, a rich opportunity to assist in a framework shift would have been missed; this change, in the cognitive developmental tradition, leads to a more adaptive stance for future transitions.

TRANSFORMATION FROM THE INSTITUTIONAL BALANCE:

Most adults move out of an exploratory mode and make major career commitments at some point. In psychosocial terms, adults enter "establishment" and "maintenance" career phases.[8] **Recent revisions of career phase theory point to a so-called mid-career reappraisal phenomenon**, in which issues of boredom, obso-

lescence, and involuntary career change arise to challenge the person to make new career meanings. **Institutionally based meaning-making, which in some ways can be regarded as a triumph during young adulthood, can be a deficit at this mid-career phase.**

The challenge of adult career reappraisal can, under favorable conditions, trigger development in the direction of an interindividual perspective. In contrast to the example of the college student (who was helped to find and act on a stable center within herself), **the overly individuated, institutionally balanced client should be encouraged to embrace newness and contradiction while still making commitments.** From this more flexible interindividual perspective, the hard-won "project" (e.g., current career role) is open to question: "Do I get what I want out of these projects?" or, even more important, "Can I reexamine what it is that I really want?" The institutional-to-interindividual transformation is a shift from embeddedness in a current form to a consideration of the basic purposes of any forms (e.g., occupational) that the person might choose to take.

Institutionally embedded career decision-askers can be challenged to hear their own inner, contradictory voices and those of others who say, "You are more than this current job, profession, or belief system; these are but forms for bigger purposes and needs that may be expressed in many ways. Try to let a little light shine on the sealed-up system that you are now."

Consider the case of Jim, age 40, who had experienced a back injury that prevented him from continuing his work as a commercial fisherman. He had concluded that he had no alternative but to pursue his current occupation in which he had invested time and other resources. Jim felt that he had to maintain a commercial position, because, in his words, "Well, I've always been a commercial fisherman; I wouldn't know how to be anything but that!" Jim had identified his self with his current occupational form.

Using Loder's first moment as a guide, I helped Jim entertain his conflict intentionally and consciously. One aspect of this conflict was that he wished to express the entrepreneurial side of himself, which had been submerged. Through a process of **supporting him in his predicament**, encouraging him to **take time to reflect** (Loder's second moment—pause), and **challenging him to consider other forms** as well as other purposes in his life, this man opted to get started in restaurant work. An image (Loder's third moment) had emerged, had been fleshed out (moment four—repatterning), and was consequently acted on (moment five—interpretation).

Such change might have been limited to job or occupational change, but Jim later said, "More than making this one change, I've reconsidered the entire way I make choices; whereas before I was locked into a kind of manual worker image of myself, I now feel freer to step into new roles. I can see multiple possibilities for myself in the future, if I can remain open to my experiences and recognize my changing needs; I just feel more open and determined." The seeds of the institutional to interindividual shift can be heard in Jim's words. **The institutionally embedded adult can be helped by the developmentally oriented counselor to become more comfortable with incompleteness and, therefore, to consider unexplored, alternate expressions of the self.**

Dilemma Holding—An Activity for Promoting Transformation

Kegan has developed a specific activity that can help adults develop more adaptively in mid-career: **development is intentionally promoted by means of explicitly encouraging them to entertain and even cherish contradictions** in their work life. In this activity, clients are asked to **reflect on what is dissonant for them in their careers.** First, a conflict-highlighting question is posed: "How could your work be going better than it is now?" Next, **participants reflect on**, in order: (1) The **beliefs or convictions** that form the foundation to the responses to

the question; (2) the **competing, contradictory, hidden beliefs that maintain the status quo**; and (3) their **contributions to the less-than-optimal expression of the beliefs** under the first reflection.

Through this activity, Kegan suggests, persons hold themselves "in jeopardy of learning," first by **becoming aware of the contradictions** and then by **working to resolve the conflicts**. Furthermore, Kegan has suggested that resolution occurs in a group, which provides a supportive context for working on challenges to one's equilibrium. He suggests that **complete resolution of the conflict is not the goal; rather, increasing comfort in living with such tensions signals developmental growth**. Thus, this activity may help clients regularly welcome dissonant information, in contrast to denial, to honestly face competing aspects of themselves, and to solve not merely a problem but to "solve themselves."

Conclusion

Career counseling can be construed as a development-enhancing activity—one that helps clients achieve greater flexibility, renew their self-definition, and live in a transformational, dialectical environment. The principles of constructive-developmental theory may serve as a foundation for a career counseling paradigm in which **career is treated as a quest**, an unfolding that requires active participation by the meaning-making client.

In this formulation, neo-Piagetian constructive developmental theory describes what effective counseling has always accomplished: **encourage clients to transform limiting, dysfunctional conceptions of themselves into possibilities that reflect greater opportunities for self-expression**, and **become less limited by circumscribed roles** and **more responsive to fundamental needs and talents**. While career counselors continue to help clients accumulate new information about themselves and their environments, they also must help clients identify their unarticulated fundamental values and needs, explore the competing beliefs that render those values unexpressed, and translate the implications of this exploration into viable actions that are authentic responses to the exploration.

From the constructive-developmental perspective, **seemingly simple transitions can be opportunities for deep structural transformation**. The counselor's task is to assess his or her clients' implicit meaning-making stances and challenge and support clients in their dilemmas in such a way that clients become open to new possibilities.

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Questions Based On This Lesson

9. A client in the interpersonal balance:

A. Is more likely to say, "I have relationships" as opposed to, "I am my relationships"

B. Tends to choose a career path that has been highly recommended, perhaps by family or peers

C. Is almost always suspicious of the counselor's motives

D. Always questions assumptions about the appropriate fields and roles for someone in his or her reference group

10. Which of the following statements about the institutional balance is false?

A. When compared with the interindividual balance, it is especially advantageous for negotiating adult redefinitions of self.

B. The strength of the self in the institutional balance lies in its abilities to identify one's own purposes and articulate a position independently.

C. The institutionally balanced client typically pursues a career singlemindedly.

D. It can be limiting in the sense that an institutionally balanced person might lack the capacity for self-correction.

11. In career counseling, the author recommends that counselors:

A. Provide a supportive—but not challenging—environment, because challenging environments typically set up the client for failure

B. Ignore seemingly superficial change, because it rarely presents an opportunity for constructive development

C. Never ask relationship-embedded clients to make their own new career meanings

D. Highlight contradictions between self-assessed needs and the client's current life roles and activities

12. Which of the following statements is attributable to Loder?

A. Dialectical thinking is a major asset in negotiating life choices and transitions.

B. The interindividual balance does not allow people to be self-transforming.

C. Personal transformation involves five "moments": conscious conflict, pause, image, repatterning, and interpretation.

D. Development is intentionally promoted by means of explicitly encouraging clients to entertain and even cherish contradictions in their careers.

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Preparing Rehabilitation Counselors to Deal with Ethical Dilemmas

Carolyn Rollins, PhD

Dr. Rollins is Assistant Professor in the Rehabilitation Counseling Program at the University of Georgia, Athens, GA.

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EDITOR'S NOTE

Within just the past few years, the rehabilitation climate has changed drastically in terms of both legislation and societal expectation. As the issues that the rehabilitation counselor must manage grow ever more numerous, the potential that an ethical conflict might arise in daily work with clients increases commensurably.

In this lesson, Dr. Rollins places the concept of ethical decision making in a contemporary context for the rehabilitation profession. Such issues as the passage of the Americans with Disabilities Act and the advent of acquired immunodeficiency syndrome (AIDS) highlight the extent to which rehabilitation counselors must remain flexible in their ability to tailor services to the individual client. Moreover, rehabilitation counselors must understand how the enduring principles of beneficence, autonomy, nonmaleficence, justice, and fidelity apply to these changing situations.

Dr. Rollins notes that rehabilitation professionals have rated in-service continuing education in ethics as very beneficial in that such training tends to reinforce and enhance their ability to recognize ethical dilemmas and develop resolutions. She describes the modules of and principles behind the Ethical Case Management Training Program, an in-service training program that has proved quite effective in promoting counselor awareness of decision-making models for rationally resolving ethical dilemmas. She describes a similar program for pre-service training and provides information for obtaining both programs.

Introduction

In recent years, the rehabilitation community has expressed an increased interest in the need to prepare rehabilitation counselors for resolving ethical issues in the course of practice.[1-3] This interest has been stimulated by an **elevated awareness of unethical behavior by rehabilitation counselors**[4] and enhanced by a realization that **many rehabilitation counselors experience difficulty recognizing and dealing with ethical dilemmas**. For example, it has been noted that **rehabilitation professionals have attempted to resolve ethical issues by using an *intuitive* process rather than an *ethical reasoning* process**[2]; recent work has indicated that **reliance on intuition is not an effective approach** for resolving the complicated ethical situations counselors encounter when providing rehabilitation services to persons with disabilities.[5]

An ethical dilemma occurs when the counselor must choose between actions that seem to adhere to one ethical principle while simultaneously compromising another. Rehabilitation professionals have a responsibility to act in a manner consistent with the ethical principles of **beneficence** (promoting client growth); **autonomy** (respecting the client's choices and decisions); **nonmaleficence** (avoiding or preventing harm to the client); **justice** (treating clients fairly); and **fidelity** (keeping one's promises and commitments, both stated and implied).[5] These ethical principles shape rehabilitation counselors' beliefs about how they should practice.[5,9-12]

The Need For Ethical Reasoning Skills

Rehabilitation counselors fulfill their roles in an **environment that is undergoing constant change** and in which **societal expectations and attitudes often conflict**; this has rendered the tasks of rehabilitation counselors increasingly complex. Therefore, it is not surprising that rehabilitation counselors are encountering ethical dilemmas more frequently. Such encounters have occurred, for example, in situations regarding **surrogacy, goal setting, and familial obligations in head trauma rehabilitation**[13]; **paternalism and consumer autonomy in independent living**[14]; **and quality assurance, differing professional perspectives of the obligation to and autonomy of the client, and role delineation in rehabilitation teams.**[15-16] Furthermore, the growth of **insurance rehabilitation, the emergence of acquired immunodeficiency syndrome (AIDS) as a disabling condition, the increasing numbers of employee assistance programs, and the increasing numbers of rehabilitation clients who are chemically dependent** all have served to complicate the ethical conflicts involved in rehabilitation and have made issues of confidentiality and accessibility more problematic for rehabilitation counselors.[17-19]

The examples that follow illustrate the potential for ethical conflict as rehabilitation counselors attempt to address two issues that can arise simultaneously when providing quality rehabilitation services.

> Two years ago, Nancy, a 22-year-old woman who has mild retardation, was placed in a sheltered workshop, where she had performed well. She is legally competent, acting as her own guardian. The workshop director contacted you—the rehabilitation counselor—indicating that Nancy might do well in sheltered employment and that he would like to reopen her case. However, Nancy has told him that she wants to keep working at the workshop because all of her friends are there. She has also told the workshop director that she does not want to see a rehabilitation counselor again at this time.
>
> Although the workshop director thinks that Nancy's needs would be better served in sheltered employment, he is not sure if he should respect her wish to remain at the workshop or refer her to you for job placement services. The director asks your opinion as Nancy's rehabilitation counselor; he will likely be strongly influenced by your response.[20]

The workshop director and the client may differ in their view of which actions represent the client's best

interests. **Whose view should be given precedence**—the client's (principle of autonomy) or the workshop director's (principle of beneficence)?

Even the decision to engage in training to develop expertise or refine existing skills is not always clear-cut. **Rehabilitation counselors sometimes may find themselves having to choose between adhering to professional standards of practice** (supporting fidelity) **and meeting clients' immediate needs** (supporting nonmaleficence).

> Your case load of clients whose disability resulted from head injury has steadily increased. You request approval to attend a 2-day continuing education workshop for counselors who work with head-injured clients. The request was approved, and the course begins the following Tuesday. In order to attend the workshop, you must postpone scheduled home visits with several active clients who are having problems and need guidance and counseling services. You must decide whether to attend the workshop or make the scheduled home visits.[20]

Some guidance in such situations can be found in **laws, regulations, and organizational policy**. **Peer consultation and professional codes of ethics** also are useful. However, in many situations, issues can emerge for which these resources offer little or no guidance. **As rehabilitation counselors provide more services in a wider range of settings to persons with a broader range of disabling conditions and with more severe disabilities, the ethical issues contained in these situations become more complex.[2] These factors, coupled with the limited guidance and resources available for resolving ethical dilemmas, necessitate the continuing review and practice of ethical reasoning skills by all rehabilitation professionals.**

Increasing Job Complexity for Rehabilitation Counselors

The early emphasis of public vocational rehabilitation counseling in the United States was restricted to persons with physical disabilities acquired through military service or agricultural or industrial employment. In the 1940s and 1950s, the client pool expanded to include persons with mental retardation and mental illness. Since the 1960s, activism by consumer disability organizations has led to several distinct changes: (a) **More disability types are eligible for services** (e.g., learning disabilities); (b) **the order in which clients are served has been prioritized** (e.g., the most severely disabled first); and (c) **the field has emphasized environmental accessibility and the integration of persons with disabilities into mainstream society.**[21]

As a result of this activism, **society's expectations of the rehabilitation counselor have increased**; simultaneously, **legislation has mandated that gains be achieved with clients who have very severe disabilities and limited vocational potential.**[21] This means that **rehabilitation counselors are working in an environment with persons who require more time and resources and for whom there is less potential for successful vocational outcome**.

Societal expectations have been boosted further by legislation of the 1990s, which attempts to ensure equal status and protect the rights of disabled persons. At the same time, **societal attitudes continue to be influenced by prejudices and biases that perpetuate differential treatment and unequal opportunity**. The Americans with Disabilities Act (ADA) seeks to ensure accessibility, accommodation, and equal opportunities for persons with disabilities, in both public and private employment.[22]

It has been suggested that one role of rehabilitation counselors in assuring the implementation of the ADA is that of a "broker": i.e., a provider of services designed to forge a stronger relationship between the business community and the community of persons with disabilities.[23] Employers are concerned with how to provide accommodation for different jobs, cost-effective job restructuring, and the ADA's impact on workers' compensation claims.[24] As brokers, rehabilitation counselors will be in a position to provide training and techni-

cal assistance for employers and promote collaboration with consumer advocacy groups to create opportunities for trust and understanding.

Rehabilitation counselors simultaneously will have to move from the current service-based focus to a client-based focus.[23,25] In other words, counselors will not be able to serve as brokers in promoting the spirit of the ADA without an adjustment of their "service delivery" mindset; **they must move from the current "good cause" way of thinking to a "service marketing"** manner of thought and behavior. Such behavior will demonstrate an understanding of employers' needs and suggest the capacity to provide appropriate consultation and disability management services.[23,24] The atmosphere stimulated by **the ADA requires that rehabilitation counselors possess skills in consumer advocacy, professional collaboration and client consultation, and providing training and education.**[26,27]

In this environment of heightened societal expectations, limited opportunity, and mandated change, **rehabilitation counselors must balance the need for successful closures against the need to achieve maximal client rehabilitation gains. Such a balance cannot be achieved without confronting ethical issues.** To meet these demands, rehabilitation counselors must possess ethical decision-making skills as well as a broad range of technical competencies.

Approaches for Teaching Decision-Making in Ethics

Formal ethics training is one way to prepare rehabilitation counselors to make effective decisions in ethically laden situations. For this reason, it is important to view **ethical decision-making as a skill that can be learned** and which should be included in rehabilitation counselors' educational training.[28,29] However, until recently, opportunities for formal instruction in ethics were limited. For example, among the rehabilitation educators surveyed by Rollins and Rubin,[30] **less than half indicated having taken a course that focused on ethics.**

Although more attention is being given to ethics in rehabilitation education, the number of courses focusing on ethics that are available to future counselors is unlikely to increase significantly. When offered, ethics more likely will be integrated into existing courses.[3,30]

The ability of professional rehabilitation counselors to be more analytical when confronting ethical issues can be enhanced through in-service training,[31] which has been provided in many regions throughout the United States. Rehabilitation professionals who have participated in ethical decision-making training generally believe that the training has a positive effect on their professional skills by enhancing their ability to recognize and develop resolutions for ethical dilemmas; consequently, the training is beneficial for their clients.

Educators who teach ethics for rehabilitation counselors should consider the fact that **there is no consensus on the best approach for ethics education.** However, the instructor should have some experience in teaching ethics in rehabilitation and be familiar with the language, concepts, and analytic methods of ethics, as well as be able to critique participants' responses.[31] **Instructional strategies for ethics education can include presentations of ethical theory; the use of case studies, role playing, and debates; and the use of video presentations.**

Teaching methods vary, depending on the skills, resources, and background of both educators and students.[32] **Training in ethical reasoning should include values, principles, and theories; codes of ethics; case situations containing ethical dilemmas; and ethical decision-making models.**[4-5,9,10,29]

- **Instruction should promote an understanding of the ethical principles of beneficence, autonomy, nonmaleficence, fidelity, and justice.** Howie and colleagues[35] have conducted especially helpful research on this topic.
- **Instruction in rehabilitation should promote familiarity with and an understand-**

ing of the *Code of Professional Ethics for Rehabilitation Counselors* as a guide for decision making.

- **Instruction should provide practice in identifying and analyzing the types of ethical dilemmas encountered in the rehabilitation service-delivery process.**
- **An ethical decision-making model for resolving ethical dilemmas that are likely to occur in rehabilitation practice should be taught.**

The choice of a decision-making model is a critical decision. **Diverse models of decision-making in ethics have ranged from a process of professional self-exploration,[36] to the development of moral reasoning,[37] to moral development,[38] to a process of ethical reasoning,[5] to a hierarchical model of ethical practice.[39] Some of these decision-making models are cognitively based,** requiring that the user assess the value systems present in the situation, gather and analyze the relevant situational and technical information, identify the options and the consequences associated with each option, and make a logically justifiable choice. **One of the models is based on an integrative approach,** which applies greater consideration to the social and organizational-contextual variables that may influence ethical practice.[39]

The inclusion of ethics in rehabilitation education may have been influenced by the limited resources available for teaching ethics.[4] Areas of professional responsibility for which rehabilitation educators have identified a need for instructional materials include: confidentiality of information; assessment and client evaluation; professional relationships with referral sources including insurance and third-party payers; consumer advocacy; relationships with colleagues and other professionals; multicultural relationships; fees and financial practices; counselor advertising of services.[30]

Two resources for teaching ethical decision making, *The Ethical Case Management Practices Training Program*[40] and *The Ethical Practices in Rehabilitation Training Modules*,[20] can be obtained from the National Clearing House of Rehabilitation Materials at Oklahoma State University. *The Ethical Case Management Practices Training Program* is an in-service training curriculum designed to provide rehabilitation counselors with: (a) **An understanding of the five ethical principles** mentioned above; (b) an increased **understanding of the *Code of Professional Ethics for Rehabilitation Counselors*** as a guide for case-management decision making; (c) **practice** in identifying and analyzing ethical dilemmas encountered in the rehabilitation case-management process; and (d) **an ethical decision-making model for rationally resolving ethical dilemmas** likely to occur in the rehabilitation case-management process. Table 1 on the following page describes the instructional units.[40]

Adapted from *The Ethical Case Management Practices Training Program*, the *Ethical Practices in Rehabilitation Training Modules* are designed for use in preservice education to increase the following skills of future rehabilitation counselors:

- **Ability to identify and analyze ethical dilemmas** encountered in the rehabilitation service-delivery process
- **Understanding of the strengths and limitations of the *Code of Professional Ethics for Rehabilitation Counselors*** as a guide for rehabilitation decision making
- **Ability to develop rationally defensible resolutions to ethical dilemmas** encountered in the rehabilitation service-delivery process

The instructional materials outlined in Table 2 (p. 4-9) are organized in a modular fashion. The instructor of a comprehensive ethics course such as "Legal and Ethical Aspects of Rehabilitation" can use all of the modules, whereas the instructor of a more general course such as "Introduction to Rehabilitation" or "Rehabilitation Case Management" can use individual modules to address specific instructional topics. **Both sets of materials use several instructional methods, including lecture, visual aids, individual activities, group discussion, and debate.** Also included are **opportunities to deal with case situations that involve ethical issues,**

Table 1

TITLE AND PURPOSE OF EACH INSTRUCTIONAL UNIT OF *THE ETHICAL CASE MANAGEMENT PRACTICES TRAINING PROGRAM* (IN-SERVICE)

Unit 1: (1hr)	***Conflicting valued actions in case management*** Trainees are provided with an opportunity to identify their many valued case-management actions and to associate these actions with five ethical principles. Unit 1 is designed to increase their awareness of ethical conflicts present in such choices and the frequency with which these conflicts occur.
Unit 2: (1hr)	***Identifying and analyzing ethical dilemmas*** Trainers are provided with practice in identifying ethical dilemmas in rehabilitation case management situations. Through the exercises contained in Unit 2, trainees should gain a greater understanding of the characteristics of ethical dilemmas encountered in the rehabilitation case management process.
Unit 3: (4 hrs)	***The* Code of Professional Ethics for Rehabilitation Counselors** Trainees are introduced to the *Code of Professional Ethics for Rehabilitation Counselors* as a source of guidance for their service-delivery behavior. They are also introduced to the relationships between ethical principles and the content of the *Code*. Via exercises, trainees learn to use the *Code* as a guide for resolving ethical dilemmas, as well as other ethically laden case-management situations.
Unit 4: (4 hrs)	***An ethical decision-making model for rehabilitation*** In Unit 4, trainees are introduced to a six-step ethical decision-making model. Through practice exercises that apply the model to case-management situations, trainees learn how to use the model for resolving ethical dilemmas.
Unit 5: (4 hrs)	***Further application of the ethical decision-making model*** Trainees are provided with further practice in resolving ethical dilemmas as well as with opportunities to discuss ethical dilemmas they have encountered personally.

some of which are ethical dilemmas. **Instructors of ethics in rehabilitation must, for the most part, develop their own approaches; they must discover what works best for them and alter their approach to meet varying class needs, objectives, and abilities.**[32] These resources provide a starting point for doing so.

Conclusion

It may be that persons who enter the rehabilitation counseling profession already have a strong orientation to helping others but do not yet understand the complexities of the helping relationship. The study of ethics may help these persons clarify their own values and better perceive the interrelationships between such values as treating all people fairly (justice) and respecting client choices (autonomy). By analyzing these relationships more clearly, rehabilitation counselors may be better able to develop their philosophy of helping. Conscious ethical decision-making processes should aid rehabilitation counselors in making policy and service-delivery decisions that are appropriate and equitable.[41]

Table 2
TITLES AND CONTENT OF THE INSTRUCTIONAL MODULES OF THE *ETHICAL PRACTICES IN REHABILITATION TRAINING MODULES* (PRE-SERVICE)

Module 1—*An easy-to-understand introduction to ethical principles for rehabilitation practitioners*

Students are introduced to five ethical principles that provide a foundation for ethical behavior in rehabilitation and the human service professions. In Module 1, students are provided an opportunity to clarify the values that influenced their choice of a career in rehabilitation and some of the ways that ethical principles influence their personal values and many everyday decisions. Desirable actions are identified and associated with five ethical principles.

Module 2—*Value conflicts in the rehabilitation-service delivery process*

This module promotes an awareness of ethical choices faced by rehabilitation practitioners.

Module 3—*Introduction to the* Code of Professional Ethics for Rehabilitation Counselors

Introduces the canons and rules of the *Code* and the relationship between ethical principles and the content of the *Code*.

Module 4—*Teachings of the* Code

In Module 4, students process the content of the *Code* to increase their understanding of what the *Code* teaches.

Module 5—*Consulting the* Code *for resolutions for ethical dilemmas*

Students are provided with an opportunity to seek guidance from the *Code* for dealing with situations containing ethical dilemmas. In addition, an increased awareness of the limitations of the *Code* as a guide for resolving ethical dilemmas is facilitated.

Module 6—*An ethical decision-making model for rehabilitation practitioners*

In Module 6, a six-step ethical decision-making model is introduced. Exercises provide practice use of the model for resolving ethical dilemmas contained in rehabilitation situations.

Module 7—*Further application of the ethical decision-making model*

Module 7 provides additional practice using the ethical decision-making model and a discussion of student experiences involving ethical dilemmas.

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QUESTIONS BASED ON THIS LESSON

17. Which of the following would the author say is true?

A. An intuitive process is more effective than an ethical reasoning process for managing an ethical dilemma.

B. Ethical dilemmas occur when a counselor must choose between actions that seem to adhere to one ethical principle while simultaneously compromising another.

C. The advent of AIDS has not significantly contributed to the complexity of ethical dilemmas for the counselor.

D. Recent legislation has relieved rehabilitation counselors of the responsibility of providing most of the rehabilitation services for the seriously disabled.

18. The main ethical conflict in the case of Nancy presented in this lesson involved the principles of:

A. Beneficence vs. autonomy

B. Justice vs. injustice

C. Societal expectations vs. individuality

D. Nonmaleficence vs. fidelity

19. Which of the following is *not* described by the author as a type of approach to ethical decision making?

A. Emotional

B. Cognitive

C. Hierarchical

D. Integrative

20. The ethical case management practices training program:

A. Is designed as an in-service learning tool for rehabilitation professionals

B. Helps professionals identify ethical issues and provides a decision-making model

C. Provides extensive information on the *Code of Professional Ethics for Rehabilitation*

D. All of the above

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HATHERLEIGH PROFESSIONAL EDUCATION

Directions in Rehabilitation Counseling

VOLUME 5 • LESSON 5

Teaching Self-Help to Vocational Rehabilitation Clients

Fabricio E. Balcazar, PhD, and Christopher B. Keys, PhD

Dr. Balcazar is a Senior Research Specialist at the University Affiliated Program in Developmental Disabilities and Assistant Clinical Professor in the Department of Psychology at the University of Illinois, Chicago, IL.

Dr. Keys is a Professor and Chair of the Division of Community and Prevention Research in the Department of Psychology, and Coordinator of the Advocacy and Organizational Development Group at the University Affiliated Program at the University of Illinois, Chicago, IL.

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EDITOR'S NOTE

The concept of client empowerment is itself not new—in the rehabilitation setting, the ultimate goal of the profession has always been to promote independent client functioning. However, as Drs. Balcazar and Keys indicate, it is important to understand how the concept of empowerment affects the nature of the counseling relationship. From the outside, it appears that there is a natural power imbalance: the client is seeking help from a knowledgeable professional, who may consequently feel somewhat superior. However, as the authors demonstrate, a primary concern should be to help the client realize from the outset that rehabilitation is an egalitarian partnership in which both members are responsible for working toward shared goals. This type of relationship creates a climate that is most effective for helping clients understand how best to use and develop their strengths; moreover, it allows counselors to model the types of positive relationships clients seek with others.

The authors have developed a six-step intervention to instruct clients in setting goals and recruiting assistance. It is a group process that takes approximately 20–30 hours. This Client Empowerment Process consists of the following units:

- The initial meeting
- Identifying strengths and challenges
- Setting goals and planning actions
- Identifying mentors
- Strengthening skills for recruiting help
- Implementing plans

The authors present a detailed description of each of the six steps and recommendations for implementing them in daily work with clients, and also provide a case study to illustrate how the process works. They emphasize that one of the most important components is continuing commitment on the part of the rehabilitation professional and supervisors; without such support, the process is likely to fail, even for clients who have significantly increased their level of empowerment.

Introduction

The reauthorization of the Rehabilitation Act of 1973 has stimulated discussion about better ways to expand client involvement in the rehabilitation process. Most rehabilitation experts agree that the ultimate goal of community-based vocational rehabilitation is to **promote independent client functioning**. Although employment is a central part of this effort, states such as Illinois have an estimated unemployment rate of 66% for adults with disabilities,[1] and of those persons who are employed, only 25% are employed full time. In order to address these shortcomings, vocational rehabilitation service- delivery systems need to redefine their roles and modify the ways in which services are typically provided. We believe that vocational rehabilitation service-delivery systems should **develop an organizational culture that promotes and supports client empowerment**.

Empowerment characterizes the focus of the client-involvement movement of the 1990s. However, there is **little agreement among vocational rehabilitation practitioners about how the concept of empowerment changes the nature of the counseling relationship or is actually implemented in the rehabilitation process**. Part of the problem has been the **limited research data available** on this topic. There is a need to define terms and approaches that could foster empowerment in vocational rehabilitation counseling. This lesson provides a conceptual framework for client empowerment and describes one empirically based approach to promoting client empowerment in the vocational rehabilitation context.

The Construct of Empowerment

Empowerment generally refers to a sense of control over one's own life or the acquisition of competencies essential to increase that control.[2] Another definition proposed by the Cornell Empowerment Group[3] suggests that empowerment is **an ongoing process involving critical reflection and active participation, by which persons lacking an equal share of valued resources gain greater access to and control over those resources.** This definition has several important implications[4]:

- Empowerment is an **ongoing and dynamic process**; one typically becomes empowered gradually. It is also **situation specific**; a person might appear empowered in one setting but not in another.
- Empowerment requires **active individual involvement**. A person cannot be a passive recipient of services. To become empowered, the client must be proactive rather than reactive and must **follow through on commitments and responsibilities**. He or she is motivated and takes the initiative.
- **Clients also seek to understand and analyze critically the particular circumstances surrounding their own rehabilitation.** Clients develop their own capacity to analyze **using past experiences and critical reflection**.
- **Clients exert a greater level of control over the decision-making process**, which leads to the allocation of resources or opportunities in rehabilitation. They are actively involved in setting rehabilitation goals and completing the Individual Written Rehabilitation Program.
- Persons obtain the resources required for their own rehabilitation. These resources are not only the services typically provided by vocational rehabilitation counselors, but also an array of services and opportunities obtained from multiple community sources. They learn to draw on formal and informal networks for help and to recruit help from other people in the community who can also support their rehabilitation. **The vocational rehabilitation counselor may no longer be perceived as the sole or even primary source of assistance.**

A Model of Client Empowerment

The client empowerment model proposed here emphasizes the **development of relevant competencies among persons with disabilities involved in vocational rehabilitation counseling**. Based on our review of rel-

evant literature and on consultations with other experts, competencies such as **setting goals and recruiting help appear to be particularly important**. Setting goals is an important means for **promoting active participation and critical reflection about the direction of rehabilitation efforts. It places clients in a position of greater control over their own lives.** Recruiting help can **reduce social isolation and can increase the support and resources available** to persons with disabilities. By recruiting help from others, the client may gain greater access to resources previously out of reach. Consequently, setting goals and recruiting help can be central elements for personal empowerment.

The proposed model uses a **structured, time-limited group approach to competence development**. Structure can galvanize the energy of persons with disabilities, enabling them to focus more fully on the tasks at hand; in addition, it **provides the counselor with a solid, detailed framework for promoting empowerment. A time-limited approach recognizes the expectation that the counseling relationship has a beginning and an end.** The process emphasizes strengthening the competencies of clients so they can live and function independently and successfully. **The counselor's support gradually fades as clients progress in the pursuit of their rehabilitation goals.**

Group methods provide the opportunity for mutual learning and support. **Persons with disabilities learn that others have similar problems, see how they are coping with them, and help one another with information and empathy.[3] Group training also optimizes the time investment on the part of the counselor.** In effective groups, norms of trust and equality can encourage the development of empowering relationships among participants. Clients have the opportunity to reciprocate and help others. However, **group methods can be challenging for counselors without training or experience**. Obtaining advice from colleagues or supervisors, following the structure of the intervention, and looking for ways to promote positive group interaction on relevant issues will help counselors strengthen their group competencies.

Intervention Approach

A six-step intervention (Figure 1) was developed to provide a specific approach for counselors in the process of instructing their clients in the skills of setting goals and recruiting help.[6] **The training intervention (steps 1–5) takes approximately 20–30 hours, depending on the number of clients trained and the degree of severity of their disabilities. The duration of the implementation phase (step 6) varies from person to person. We recommend a series of half-day training sessions that could be completed in 6–10 days over 2 weeks.** Training materials and procedures have been tested successfully with a group of college students with physical disabilities,[7] a group of African-American high-school students,[8] a group of adjudicated male adolescents with disabilities from high school,[9] and a group of adult vocational rehabilitation clients with physical or mental disabilities (F.E.B. et al., unpublished data, 1993).

Figure 1
The Client Empowerment Process

The Initial Meeting
⇩
Identifying Strengths and Challenges
⇩
Setting Goals and Planning Actions
⇩
Identifying Mentors
⇩
Strengthening Skills for Recruiting Help
⇩
Implementing Plans

STEP 1—THE INITIAL MEETING:

The initial meeting between the counselor and the disabled client can be a deciding factor in whether or not he or she chooses to engage in this type of empowering relationship. Some clients may be intimidated or afraid of the unknown. During this first meeting, the counselor carefully explains the expectations, options, and responsibilities of the process, ensuring clients understand their choices. The initial meeting sets the tone for the type of communication and interaction expected during the rehabilitation process. The client is expected to take an active role in setting goals and specific objectives, learn to recruit help from others, and engage in the pursuit of his or her rehabilitation plan. **The counselor is expected to communicate openly and sincerely in a nontechnical way.** The aim is to **eliminate any pretense of superiority**.[10] Throughout the training, **the counselor elicits responses from clients to ensure that the content of the materials is clearly understood**. The counselor should **use specific assignments to foster the use of such skills**.

STEP 2—IDENTIFYING STRENGTHS AND CHALLENGES:

Once clients understand the nature of the intervention as well as their role, and are committed to it, they are asked to identify their strengths and challenges. **Strengths should be addressed first—the client's recognition of his or her strengths can boost self-esteem, energy, and motivation for the effort ahead.** Also, **clients are expected to articulate their strengths in the process of recruiting help from others**. In a careful, supportive way, **the counselor should encourage the discussion of issues associated with personal challenges** (e.g., being disabled, poor, or a member of a minority group). Counselors should focus on how the client's strengths can overcome personal challenges. These activities emphasize that augmenting self-awareness is useful for future success.

STEP 3—SETTING GOALS AND PLANNING ACTIONS:

The counselor can use the training manual to assist clients in selecting long-term goals, preparing short-term objectives, and developing specific plans of action. This step begins with an exercise to prompt clients to think about their future. Then, they review a list of possible goals in areas such as employment, education, health, social involvement, and independent living. **After reviewing the list of possible goals, clients are asked to prepare their own long-term goal statement. Selected goals should be important and achievable.**

After selecting a long-term goal, clients should divide it into smaller, short-term objectives. Next, they identify the specific actions required to address each objective and develop a time frame for taking action. The specification of objectives and formulation of actions required are central components to the success of the process. The counselor can later use a copy of the action plan to monitor the client's progress toward specific objectives and to prompt the client to meet the plan's deadlines. The plan also should be **flexible to allow for any necessary adjustments as new, relevant information becomes available**.

We have conducted this action planning process, which is challenging for most clients, in dyads and groups. We have noticed that persons who are more advanced in their rehabilitation can greatly contribute and support others who are just beginning. In fact, clients with the most experience often appreciate the opportunity to contribute and help others. The group process provides the means by which clients learn and share from their own personal experiences.

STEP 4—IDENTIFYING MENTORS:

The counselor introduces the concept of mentors and potential helpers who can assist clients in reaching their rehabilitation goals. Such persons can provide help in clarifying goals and expectations and gaining

entry into new settings or offering job placements. **Mentors may suggest others who can help; they also may provide material aid or resources to meet objectives. They may offer physical assistance, share a task, or give advice on how to handle a problem. Sometimes, they will use their leverage to influence others or remove obstacles.** They may provide emotional support, instruction in a new skill or activity, performance feedback, and suggestions on how to avoid harmful situations or actions. In short, mentors can provide valuable assistance to help clients with disabilities achieve their goals.

The counselor should work with clients to identify persons who can provide needed help with their plan of action. Furthermore, the counselor should **encourage the involvement of significant others in the development of the rehabilitation plan and implementation of the program**. Such persons are seen as potential sources of support and assistance in the process.

STEP 5—STRENGTHENING SKILLS FOR RECRUITING HELP:

This step emphasizes the acquisition and practice of **help-recruiting skills. The training is very active and uses many role-playing situations** to practice the various skills. **The skills needed to deal with "gatekeepers,"** such as secretaries, **in order to arrange appointments with potential helpers, should be strengthened first. Then, the trainees learn social skills, which can be used when meeting with potential helpers or mentors. Counselors close this phase by focusing on how to follow up and maintain contact with helpers.**

Based on our previous research, we identified **24 behaviors displayed when clients met with a potential helper or mentor to request assistance** with a personal goal. We have divided these meeting behaviors into **four clusters** and **introduce each one gradually through role-playing exercises**. The clusters are: ***opening the meeting*** (e.g., greet the person and introduce yourself and mention a referral source); ***making a request*** (e.g., state your personal goal and describe your situation); ***planning actions and handling rejections*** (e.g., ask for other suggestions and make a less demanding request); and ***closing the meeting*** (e.g., summarize the agreements and express your appreciation).

These behaviors allow clients to **make a positive impression** during their first meeting with a potential helper or employer. They learn to **describe their situation in an appealing way and also to react constructively when their initial request for help is denied**. Moreover, clients learn to **ask for a referral if the person is not able to help**. Perhaps the next meeting will yield the desired results.

Through the development of these valuable skills, persons with disabilities can obtain and benefit from the various forms of support. **We encourage counselors to organize a small network of mentors with whom clients can practice their newly acquired skills.** This network provides a safe environment that can bolster self-confidence and help ease the transition into the "real world." Some mentors may be successfully employed persons with disabilities who want to share their experiences and expertise with group members.

STEP 6—IMPLEMENTING PLANS:

Once **clients** have completed the first five steps of the intervention, they **are expected to implement their plans of action**. The counselor follows the client during the program-implementation phase and provides support, feedback, and **guidance as needed**. **Although the exact pattern of follow-up varies with each person, regular follow-up is critical.** It provides support and reduces the likelihood that clients will flounder or fail to take the planned actions. **Follow-up support typically is needed more intensively and frequently in the beginning (e.g., with weekly meetings or phone calls) and then less often (e.g., with monthly calls) as clients progress toward their goals.**

Follow-up usually involves **more than just checking in with the client**. The counselor may help the client **rethink and modify his or her action plan and/or goals to adjust to reality or changing situations**. The counselor also may help the client **remove personal or environmental barriers to goal attainment.**[11] By employing a positive problem-solving attitude, the counselor may actively help the client **identify barriers, analyze them, and develop plans for their removal**. Removing such barriers is, in fact, a process that requires **creativity** and, in many instances, the **efficient allocation of resources**.

Examples of individual barriers include various issues arising from the client's history (e.g., insecurity, fear, or lack of social skills) as well as the type and severity of the disability (e.g., the need for adaptive equipment or medication). Examples of environmental barriers include issues associated with living in poverty (e.g., the lack of appropriate clothing for job interviews or accessible means of transportation) as well as community support (e.g., the availability of jobs in the area, community accessibility, availability of public transportation, affordable housing). Although quite challenging, **these obstacles are not insurmountable**. The client, with support from the counselor, should seek assistance from local or regional resources. Referrals and recommendations to access other service agencies can be made. However, **the disabled person should actually be the one to secure the needed help**.

Case Presentation

Ana, a 19-year-old, unemployed, Hispanic high-school graduate, was diagnosed as having **severe learning disabilities**. She was receiving assistance from the Illinois Department of Rehabilitation Services (IDORS) when she was recruited by her counselor to participate in the empowerment training project. Her **long-term goal was to work in an office, but she doubted she would ever find the kind of job she wanted.**

She participated in a training group with five other high-school graduates of her age. Their vocational rehabilitation counselor conducted the training in client empowerment. **Participants first learned to identify and discuss their strengths** (e.g., being highly motivated) **and challenges** (e.g., having a learning disability). **Then, trainees worked with the counselor to clarify their long-term goal(s) and divided each goal into short-term objectives. Ana selected goals in the areas of employment, education, and health.** She wanted to find a full-time job, take a couple of college classes, and lose 20 pounds. With the help of the counselor and the other group members, she prepared a plan of action. **Participants then practiced help-recruiting and job-interviewing skills using role-playing situations.**

As the training progressed, **Ana became more confident of her social skills. Her motivation increased** with the positive impression she made on her counselor. Shortly after finishing the training, Ana started working on her plan of action. She contacted the job-placement specialist at the IDORS office. A few days after meeting with the placement specialist, she **received a tip about a clerical job with a local corporation**. Ana applied for the job and did very well at the interview. Her improved interpersonal skills helped her on the job interview; she received a job offer and began working.

Ana was quite happy in her job and decided to postpone her educational goal because she had to take some classes at work. However, after nearly 1 month, her counselor received a phone call from Ana's supervisor indicating that he was considering firing her. Apparently, she was having some difficulties performing some of her tasks, and her supervisors did not know how to help her. The supervisor agreed to let Ana have a job coach on site to see how she could be helped. The counselor assumed the role of the job coach for the first day and arranged for a regular job coach for a second day. This assistance was sufficient to help Ana improve her performance to the standards required by the corpora-

tion. For almost 2 years, Ana has held the position, which offers a good salary and a full benefits package. She also reported that she lost 10 pounds and is exercising regularly. This case presentation illustrates **the positive impact of client empowerment on a person's skills, motivation, and independence. It also demonstrates the crucial importance of counselor support and follow-up**.

Benefits of Client Empowerment

As Ana's situation suggests, an empowering relationship promotes and facilitates ***mutual growth***. It is **an opportunity for the client to exert a greater degree of control in the decision-making process. It also allows counselors to develop more meaningful relationships with clients and to learn from their experience. The relationship is established on the premises of equality and trust. Both persons have rights and responsibilities, which should be delineated at the beginning of the process.** Then, they can make an informed decision as to whether they want to participate in such a relationship. **Both counselors and clients should make a commitment to the empowerment process.**

Empowering relationships require counselors and clients to share the responsibility for progress in rehabilitation. Any progress is the result of their individual and joint contributions. **Both Ana's motivation and her counselor's support were essential to her success.**

Rehabilitation should be individually tailored to meet the unique characteristics of each client. For instance, **counselors should avoid setting a standard for what constitutes appropriate client involvement without taking into consideration the individual's characteristics, personal history, and type and severity of the disability**. The process should be flexible enough to permit individual adjustments and changes. Vocational rehabilitation is unique for each person with a disability. Empowering relationships promote choices and foster independence, so persons with disabilities become more resourceful and less dependent on the assistance provided by counselors. The process teaches disabled clients to use the available resources in their own communities to promote their independence.

Concerns About Client Empowerment

Several concerns regarding the implementation of empowerment in the rehabilitation process have been suggested:

- **A person cannot be forced to become empowered.** The person has to be motivated to engage effectively in the process. Some persons do not feel comfortable changing the nature of their relationship with service providers. This is due, in part, to their own history of dealing with a medical system that reinforces client passivity and submissiveness to the directives of the provider.
- **Not all clients can become empowered to the same degree.** For example, some **persons with severe cognitive disabilities might not be able to understand fully what is expected of them when counselors use conventional training methods**. Vocational rehabilitation counselors should creatively try to find effective ways to involve persons with severe disabilities in their rehabilitation. Several counselors have had notable success with persons with cognitive disabilities and other severe limitations using this client empowerment model.[9]
- With regard to the decisions concerning the goals of the rehabilitation effort, it is necessary to **educate the client as to the availability of resources and opportunities as well as the limitations of the process**. The counselor and the client should develop a detailed plan of action that specifies mutually agreed expenditures and responsibilities in implementing the rehabilitation program. **The client is always entitled to appeal any decision that he or she deems unfair or unreasonable through the established mechanisms of the client-assistance program.**

- **The counselor must be willing to allow the empowerment process to develop and progress.** As illustrated in Ana's situation, the counselor is responsible for educating and supporting the client. Without the counselor's real commitment—and support from supervisors—the process is likely to fail. In fact, both parties have a shared responsibility for making the process work. However, our experience suggests that, in many cases, **it is up to the counselor to initiate the client empowerment process**.
- **An empowering relationship also requires counselors to change the nature of their interaction with clients. Perhaps the most fundamental change for the counselor is to remove himself or herself from any position of psychological superiority over the client.** Although the counselor's training and experience are undeniable, they do not necessarily mandate a preeminent attitude of superiority. **The most important transformation of the counseling relationship is for counselors to see themselves as equal partners in the rehabilitation process.** Equal partnership implies an active collaborative effort between two persons. Therefore, both participants are open to the experience.
- **Individual counselors need to experience organizational support for their client empowerment efforts.** This issue refers not only to the need for direct supervisory support, but to an overall organizational commitment. This commitment should be reflected in smaller case loads for counselors as well as the availability of appropriate training and technical assistance. It should include more emphasis on counseling as a primary role of vocational rehabilitation counselors. It involves the availability of appropriate funds and resources.

Conclusion

Empowerment may be an idea whose time has come. By empowering persons with disabilities through innovative vocational rehabilitation, counselors enable them to become more independent, productive, satisfied members of society. **By building trusting, egalitarian relationships with persons with disabilities, counselors model the positive, mutual interactions these persons seek with others.**

The particular intervention described here is one method that has been effective in promoting empowerment with a variety of persons. It has been tested with various client groups[7-9] and the results to date have been positive. It requires **willing clients, committed innovative counselors, and a supportive organizational culture**.

Strengthening the skills of setting goals, planning action, and recruiting help can have a positive effect in the attainment of rehabilitation and **independence**. Client empowerment does not mean that counselors give up their responsibilities and simply hand them over to clients. Rather, **both parties share responsibilities and exercise significant input in the counseling process**.[10] Therefore, client empowerment has very important and practical implications in the development of effective intervention strategies designed to maximize rehabilitation.

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QUESTIONS BASED ON THIS LESSON

17. The definition of empowerment cited by the authors implies:

A. Clients become empowered in an instantaneous manner rather than gradually.

B. Empowerment is situation specific.

C. Clients do not exert any control over the decision-making process.

D. The vocational rehabilitation counselor is the only source of assistance for the client.

18. In the six-step intervention approach described by the authors:

A. It is important for the counselor to establish the pretense of superiority in the initial meeting so that the client respects the counselor adequately.

B. In step 2 (identifying strengths and challenges), the counselor should not discuss issues associated with personal challenges, because most clients become discouraged by such issues early on and then abandon the intervention altogether.

C. When strengthening skills for recruiting help, it is not necessary to practice the handling of rejections in role-playing exercises.

D. The duration of the implementation phase (step 6) varies from person to person.

19. Lack of appropriate clothing for job interviews and availability of jobs in a particular area are examples of:

A. Barriers arising from the client's personal history

B. Environmental barriers

C. Unsurmountable obstacles

D. None of the above

20. Which of the following statements is *false*?

A. It is possible for all clients to become empowered to the same degree.

B. A person cannot be forced to become empowered.

C. Clients are always entitled to appeal any decision that he or she deems unfair through the established mechanisms of the client-assistance program.

D. The counselor should educate the client about both the availability of resources and opportunities and the limitations of the rehabilitation process.

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Directions in Rehabilitation Counseling

VOLUME 5 • LESSON 6

Treatment of Depression and the Restoration of Work Capacity

Jim Mintz, PhD, Lois I. Mintz, PhD, Mary Jane Robertson, MS, Robert P. Liberman, MD, and Shirley M. Glynn, PhD

Dr. J. Mintz is Professor, Department of Psychiatry and Biobehavioral Sciences, UCLA School of Medicine; Research Psychologist, West Los Angeles Veterans Affairs Medical Center; and Chief, Methodology and Statistical Services Unit, Clinical Research Center for the Study of Schizophrenia, Los Angeles, CA.

Dr. L. Mintz is Assistant Research Psychologist, Department of Psychiatry and Biobehavioral Sciences, UCLA School of Medicine, Los Angeles, CA.

Ms. Robertson [formerly Arruda] is a Research Associate, Department of Psychiatry and Biobehavioral Sciences, UCLA School of Medicine, Los Angeles, CA.

Dr. Liberman is Professor, Department of Psychiatry and Biobehavioral Sciences, UCLA School of Medicine; Director, Clinical Research Unit at Camarillo [CA] State Hospital; Director, Clinical Research Center for the Study of Schizophrenia; and Chief, Treatment Development and Assessment Unit, Community and Rehabilitative Psychiatry Section, Psychiatry Service, West Los Angeles [CA] Veterans Affairs Medical Center.

Dr. Glynn is Assistant Research Psychologist, Department of Psychiatry and Biobehavioral Sciences, UCLA School of Medicine, and Clinical Research Psychologist at the West Los Angeles [CA] Veterans Affairs Medical Center.

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Frederic Flach, MD
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Donnelle I. Eargle, PhD, MEd
Paul Leung, PhD, CRC
Keith M. Robinson, MD
Susan R. Sabelli, CRC, LRC

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Editor's Note

The impact of depression on job productivity is an issue of profound societal importance; in terms of lost time and diminished productivity, it may cost the United States economy more than $40 billion annually. However, data that link job performance with specific depressive symptoms are quite scarce; moreover, although most depression scales assess symptoms that relate to work impairment, none of them links particular symptoms with impaired work performance. One of the reasons is that it may be difficult to determine whether work problems experienced by a client are a result of depression or its cause.

The authors first discuss the reciprocal relationship between depression and work functioning, and describe the downward spiral by which problems in these areas exacerbate each other. They then describe the tools for assessing and classifying work impairment. Depression can cause both affective work impairment and functional work impairment, and the authors provide assessment methods for distinguishing one from the other.

Finally, the authors describe how treatment for depression affects work improvement. As would be expected, work outcomes are consistently better for those whose depression remits. Also, outcomes improve as duration of treatment increases; however, counselors should be aware that symptom improvements tend to occur more rapidly than subsequent work improvements. Research shows that, given time, work impairment among depressed persons tends to be somewhat more responsive to antidepressant treatment than to psychotherapy. Adequate maintenance is an important component of treatment.

Introduction

Depressive disorders are among the most prevalent psychiatric conditions, and **impairment in occupational or major-role functioning is a common complication**. Depressive symptoms are frequent concomitants of many medical disorders, so the issue of depression and its effects on functioning is highly relevant to primary-care health providers. **An overemphasis on symptom remission has resulted in the unfortunate neglect of improved occupational and social functioning as a critical treatment goal both in clinical practice and research.**

This lesson first discusses the reciprocal influences of depression and work functioning. Then, some issues and difficulties inherent in measuring work impairment in depressed persons are presented. The results of a large-scale, multiproject study of the specific impact that treatments of depression have on occupational functioning are described.

Depression and Functional Impairment

Persons with major depressive disorder, as well as those with dysthymic disorder and depression not-otherwise-specified (NOS), are high users of medical services and are as functionally impaired as patients with severe chronic medical disorders.[1]

Mintz, Mintz, Arruda, and Hwang[2] analyzed data from eight major studies of treatment for depression. They found that more than half **(55%) of depressed patients met research criteria for work impairment at the time they entered treatment**. Although there was some variability across the eight studies, on the average, nearly **11% of patients** (range, 3%–20%) **were unemployed and another 44%** (range, 33%–69%) **were classified as impaired workers.**[2] According to epidemiologic data, patients with depression report more disability days than the general population (rates per 90-day interval: major depression, 11 days; dysthymia, 3 days; depression NOS, 4–6 days; general population, 2 days).[3]

Based on results from the Medical Outcomes Study, Stewart and colleagues[4] found that the presence of **depressive symptoms was associated with a degree of impairment in functioning at work, home, or school**; this impairment was **comparable to or even worse than that associated with eight major chronic medical conditions**, even when a clinical diagnosis of depressive disorder was not present. Indeed, **the degree of functional impairment associated with depressive symptoms was second only to that associated with advanced coronary artery disease**. They declared that depression "is perhaps more like chronic medical conditions in terms of morbidity than has previously been appreciated."[4]

Thus, the impact of depression on occupational productivity is an issue of profound societal importance. Data from the Epidemiologic Catchment Area (ECA) study[5] indicate that **depression is more prevalent in persons younger than 65 years of age—in essence, active members of the work force**. A recent, widely publicized study by Greenberg and colleagues[6] placed the **total cost of affective disorder in terms of lost time and diminished productivity at more than $40 billion annually**. Another estimate of the direct workplace cost of depression nationally in terms of lost time at work was more than 172 million days annually, based on 3%–5% 6-month prevalence rates for major depression alone.[7] Even if this estimate is somewhat high (recent data from the ECA study indicate the lifetime prevalence of major depression is 2.6% for men and 7% for women across all age groups), the cost is obviously considerable.

The direction of influence is not always easy to determine. In many cases, **it may not be possible to determine whether difficulties at work are a result or cause of depression**. Often, **patients are caught in a vicious downward cycle in which work-related problems and depressive symptoms exacerbate each other.** Weissman and colleagues[5] pointed out that **men and**

women who have been unemployed for at least 6 months in the past 5 years are "more than 3 times as likely as others to have experienced a major depressive episode in the past year." They also note that **"it is difficult to interpret the causal direction in these relationships**. They can suggest both that men and women with a history of affective disorders have greater difficulty obtaining and maintaining employment and that unemployed people are at greater risk of depressive episodes because they lack the sense of accomplishment, social bonds, time structure, and financial security provided by employment" [emphasis added].

Evidence exists to suggest that job loss and fear of job loss can have dire psychological and psychiatric consequences[8] and that **reemployment has salutary effects on mental health**.[9] Conversely, it is easy to see that symptoms of depression (such as frequent weeping; profound sadness or irritability; fatigue; lack of energy; loss of interest; slowing of thought, speech, and movement; agitation; somatic complaints including headaches or a more serious preoccupation with health) might well interfere with the capacity to work effectively.

Depressive Symptoms Related to Work Impairment

Surprisingly enough, data that link specific depressive symptoms to work performance are quite sparse. Most studies have simply demonstrated a general link between the presence of depressive symptoms and functional incapacity. In fact, Anthony and Jansen[10] cite several sources to bolster their contention that "there appear to be no symptoms or symptom patterns that are routinely related to individual work performance." The studies to which Anthony and Jansen refer relate primarily to the degree to which symptom severity during acute episodes predicts later work outcomes.

Liberman and colleagues[11,12] concurrently evaluated work performance and symptoms in over 600 persons with mental disorders. The data suggest that the conclusion of Anthony and Jansen is probably somewhat overstated and that there are significant, albeit modest, relationships between the severity of psychiatric symptoms and concurrently measured work output or productivity. **Across all diagnostic groups, so-called negative symptoms appeared to be most strongly related to work dysfunction.** (Glynn and associates[13] also found negative symptoms to be the strongest correlates of work incapacity in a sample of schizophrenic patients.) Among depressed patients, **motor retardation or slowing is probably the most crucial determinant of impaired productivity**.[12]

Tools for Assessing Work Impairment

Extensive batteries for assessing work performance among persons with serious mental illness are used in vocational rehabilitation settings (e.g., the assessment battery developed by Cook and coworkers[14]). However, psychiatric researchers in the areas of treatment and epidemiology have tended to rely on brief rating scales. This may be partly due to the fact that "functional limitations caused by depressive disorder are considered secondary to it, rather than part of its definition."[15]

Most scales for measuring work impairment rely heavily on self-reported data, raising the concern that even items relating to objective behaviors (such as absenteeism) can be subject to distortion through the lens of affective disturbance. After all, **self-criticism, negativism, and pessimism are defining characteristics of depression**. The value of actual measures of work performance is obvious; however, it would undoubtedly be a challenge to obtain such measures in both clinical and research contexts. An approach that has not been widely used outside the rehabilitation arena is **evaluation with structured tasks or standardized work samples**. This methodology, which is more widely used in vocational assessment than clinical research, has the **appeal of standardization, replicability, and ease of quantifica-**

Table 1
WORK ITEM FROM THE BECK DEPRESSION INVENTORY[15]

0 = I can work about as well as before
1 = It takes an extra effort to get started at doing something
2 = I have to push myself very hard to do anything
3 = I cannot do any work at all

Table 2
WORK ITEM FROM THE HAMILTON DEPRESSION RATING SCALE[16]

0 = No difficulty
1 = Thoughts and feelings of incapacity, fatigue or weakness related to activities
2 = Loss of interest in activity
3 = Decrease in actual time spent/decrease in productivity
4 = Stopped working because of present illness

tion. However, its applicability across a range of abilities, jobs, work settings, and subject populations is not clear.[14]

Depression rating scales usually assess a variety of symptoms that may relate to work impairment, such as **feelings of failure or lack of energy**. However, none of the widely used scales specifically links particular symptoms with impairment at work. For example, the **Beck Depression Inventory,[16] a patient self-report form, and the Hamilton Depression Rating Scale,[17] designed to be completed by a clinician, are two of the most widely used research instruments for quantifying the severity of depressive symptoms. Each has only one item in which the word "work" even appears.** On the Beck instrument (Table 1), the item confines itself to the concept of extra "effort" or "push" needed to "do anything." The Hamilton scale (Table 2) is somewhat more differentiated, alluding at increasingly severe levels to **feelings of incapacity or inefficiency, the need to push to work, lack of interest and satisfaction, indecisiveness, clearly decreased inefficiency, and lost time**. On both scales, **an inability to work at all receives the maximum score**.

Functional impairment is assessed by the **Rand 36-Item Short-Form Health Survey** (version 1.0), an instrument for epidemiologic research referenced in the Medical Outcomes Study[15] with three "yes/no" questions (Table 3).[18]

Although this simple assessment is rather nonspecific (both in terms of the functional and psychiatric domains involved), it does capture the core issues of diminished time, productivity, and quality of work and would be easy to incorporate into routine clinical assessment and screening.

In **treatment-outcome research**, the most commonly used instrument for assessing work adjustment has been the **Social Adjustment Scale** (SAS),[19-21] which has a section specifically devoted to assessment of work-role performance. We have reported that the six SAS work-role items (Table 4) fall broadly into two categories.[2] **Three of the items evaluate behaviors (absenteeism, performance adequacy, and interpersonal conflict) and might be termed measures of *functional impair-***

Table 3
WORK ITEMS FROM THE RAND 36-ITEM SHORT-FORM HEALTH SURVEY[18]

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

Decreases in the amount of time you spent on work or other activities	Yes	No
Accomplished less than you would like	Yes	No
Did not do work or other activities as carefully as usual	Yes	No

Table 4
Work Items from the Social Adjustment Scale (SAS)[19-21]

Functional Items
Time lost from work
1 = None
2 = 1 day
3 = Half the time
4 = More than half the time
5 = No days worked

Performance adequacy
1 = No impairment
2 = Adequate but some impairment
3 = Moderate impairment or did not work well about half the time
4 = Marked impairment or worked poorly most of the time
5 = Extreme impairment or worked poorly all the time

Friction/Avoidance
1 = No friction and smooth relationships
2 = Some mild friction but no avoidance
3 = Some friction and/or minimizes some contacts
4 = Moderate friction and/or minimizes many contacts
5 = Extreme friction or avoids/avoided by others

Affective Items
Feelings of adequacy
1 = Almost always feels adequate or able to handle things, or never ashamed of work
2 = Usually or often feels adequate or able to handle things, or ashamed of work once or twice
3 = Sometimes feels adequate or able to handle things, or ashamed of work half the time
4 = Rarely feels adequate or able to handle things, or ashamed of work most of the time
5 = Almost never feels adequate or able to handle things, or ashamed of work all the time

Distress at work
1 = Not at all distressed
2 = A little distressed
3 = Moderately distressed or distressed half the time
4 = Very distressed or distressed most of the time
5 = Extremely distressed or distressed all of the time

Interest in work
1 = Very interested
2 = Somewhat interested
3 = Neutral or not interested half the time
4 = Somewhat uninterested or not interested most of the time
5 = Very uninterested or not interested all the time

ment. **Three other items evaluate subjective emotional states (distress, feelings of shame, and loss of interest) and thus might be termed measures of *affective impairment.*** Norms published by Weissman and associates[22] from community samples of working men and women indicate that **most workers report very good work adjustments.** On the full six-item SAS scale, the average score for more than 200 employed community residents of both genders was 1.3 (the scale ranges from 1 to 5), with a standard deviation of 0.3. Thus, a mean SAS work-role score as low as 2 is more than 2 standard deviations above the mean and would clearly place a person in the lowest 2%–8% of average working people in the community. **Average scores of 3 or higher across the six items in Table 4 are virtually never seen in well-adjusted workers, and therefore are indicative of significant impairment.**

CLASSIFYING WORK IMPAIRMENT:

There is no generally accepted standard for determining exactly when a depressed patient should be classified as "impaired" in work function or for quantifying the degree of impairment. In 1992, we published the first major analyses of the effects of treatments of depression on functional work impairment.[2] The impetus for this project was a comprehensive review of the recent scientific literature on the effects of well-defined psychiatric treatments on outcomes in the work place. The review of more than 4000 research articles revealed that restoration of work capacity was a neglected topic in the psychiatric treatment literature, particularly in the case of affective disorders.[23] We subsequently compiled data on work outcomes from 10 major studies of treatment of depression and analyzed them to determine the effects of treatment on work, to assess whether symptoms mediate work outcome, and to identify prognostic factors associated with work restoration. The 10 collaborating projects were controlled treatment studies performed under the supervision of many of the field's most prominent inves-

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tigators.[24-38]

Patients were excluded from the project database if they were not in the active work force (e.g., a housewife), were functioning adequately at the beginning of treatment, did not comply with treatment, or were missing crucial data (e.g., posttreatment assessment of either symptom or work outcome). A total of more than 800 depressed patients were included in the final analyses. Whenever possible, a consistent definition of symptom remission using conventionally accepted cutoff scores was applied to all studies. The most common measure was the Hamilton Depression Rating Scale.

Depressed patients were classified as *functionally impaired* (Table 5) **at work if they reported significant absenteeism (missing half the scheduled work time or more); diminished productivity (at least moderate impairment or inadequate productivity at least half the scheduled time); significant interpersonal problems (many arguments or interpersonal conflicts with coworkers or supervisors; moderate friction or avoidance of social contact); poor overall functioning (an average score of 2 or more on the 3 functional SAS items); or unemployment (the SAS role item includes a code for unemployed that is distinct from housewife or student roles).** Occasionally, relevant ancillary data, such as a significant-life-events form (indicating the patient had been fired), were available.

A measure of ***affective work impairment*** was also developed (Table 6). This latter measure was computed by averaging ratings of **subjective adequacy (feelings of inadequacy, shame, or not being able to handle things at work); distress (feeling upset at work);** and **interest (lack or loss of interest in the job).** As with the functional items, **average scores above 2 were considered to reflect affective impairment.** These two measures were then used to evaluate the effects of treatments of depression on work impairment.

Treatment Results and Work Outcomes

Major depressive episodes nearly always reduce social, occupational, and interpersonal functioning to some degree, but functioning usually returns to the premorbid level between episodes if the episodes remit completely.[1]

Table 5
SAS-BASED CRITERIA FOR FUNCTIONAL WORK IMPAIRMENT[2]

Patients were operationally defined as functionally work impaired if they met any one of the following five criteria:

- ***Absenteeism***: a score of 3 or more on the SAS time-lost item; i.e., missing half the scheduled work time or more
- ***Performance problems***: a score of 3 or more on the SAS performance adequacy item; i.e., at least moderate impairment or inadequate productivity at least half the scheduled time
- ***Interpersonal problems***: a score of 4 or more on the SAS friction item; i.e., many arguments or significant interpersonal conflicts with coworkers or supervisors; moderate friction or significant avoidance of social contact at work
- ***Poor overall functioning***: a mean score of 2 or more on these three functional SAS items
- ***Unemployment***

Table 6
SAS-BASED CRITERIA FOR AFFECTIVE WORK IMPAIRMENT[2]

Patients were operationally defined as affectively work impaired if they obtained a mean score of 2 or more on the following three items:

- ***Feelings of inadequacy at work***: does not always feel adequate or able to handle things at work; ashamed of work once or twice
- ***Feelings of distress at work***: a little distressed at work, or distressed some of the time
- ***Lack of interest in work***: only somewhat interested in work or uninterested some of the time

Table 7 presents data on SAS-based functional work impairment and depression symptom outcome from six of the treatment research projects analyzed. It is based only on actively treated patients and excludes those treated with placebo. Work-outcome results are displayed separately for patients who met symptom-remission criteria at treatment termination and for those who did not. **Work outcomes were consistently better among patients whose depression remitted.** Across the studies, **the odds that a patient would remain functionally impaired at the end of treatment were nearly 3 times greater if depressive symptoms had not remitted** (the pooled-odds ratio was 2.9, $p < 0.0001$). Note, however, that on the average, only approximately 55% of patients achieved symptomatic remission. At least in this type of context, there thus seems to be an upper limit on the extent to which work restoration could occur.

Table 7 also reveals that **work outcomes tend to be steadily better as the duration of treatment increases, even if symptoms do not remit completely**. Although it seems that this occurs because the likelihood of symptomatic recovery increases with an increased duration of treatment, this is not the case. In fact, as shown in Table 7, symptom remission rates were quite comparable in "very short" and "very long" treatment studies (e.g., 64% in both a 6-week study of acute treatment[35,36] and a 9-month maintenance design[27,28]). These results support the conclusion of Giller and associates[29,30] that based on a longitudinal follow-up design, **symptom improvements often occur more rapidly than improvements in the area of work**. The lag in work recovery is also consistent with the findings of Weissman and colleagues[39] in an 8-month maintenance study: **the effects of treatment on social adjustment may not be evident for at least 6–8 months**. The data presented suggest that although the odds of full symptomatic remission are nearly as good in a 4–6-week medication trial as in a 9-month maintenance project, the odds of achieving work recovery steadily improve and may not plateau before 6 months or more.

It is well established and widely known that there are many effective treatments of depression.[1] **Because work impairment in depressed persons is intimately tied to symptom severity, it seems obvious that effective symptomatic treatments would also restore work effectiveness. However, this may not be true.** For example, **relapses and recurrences**, as well as the residual symptoms associated with some chronic depressions, **might result in demoralization or disrupt the work history such that reentry into the work place would be difficult.**

Table 7

Posttreatment Work Impairment, Symptom Remission, and Treatment Duration[2]

Project	Treatment Duration (weeks)	Symptom Remission (%)	Posttreatment Work Impairment Rates In: Remitted Patients (%)	Unremitted Patients (%)	All Patients (%)
Prusoff/Weissman[34]	4	55	57	79	67
Atypical[35,36]	6	64	36	63	45
Rush/Jarrett[38]	10	50	33	50	42
Murphy et al.[33]	12	64	31	67	44
NIMH[24]	16	59	8	18	12
MTRD[27,28]	39	64	9	—	—

Note: Logistic regression effects for study duration ($\chi^2=27.11$, $df=1$, $p<0.001$) and symptom remission status ($\chi^2=10.65$, $df=1$, $p<0.002$) are statistically significant; placebo-treated patients were excluded.

Table 8

DIRECT COMPARISONS OF MEDICATION, PSYCHOTHERAPY, AND PLACEBO IN FIVE CONTRIBUTING PROJECTS[2]

		Post-Treatment Work Impairment Rates			*Standardized Effect Size (h)[a]*	
					Drug Versus:	
Project	**N**	**Drug**	**Psychotherapy**	**Placebo**	**Psychotherapy**	**Placebo**
Atypical[35,36]	60	45%	—	81%	—	0.77
Giller et al.[29,30]	39	50%	—	82%	—	0.69
NIMH[24]	51	0%	16%	10%	0.77	0.59
Murphy et al.[33]	16	13%	75%	—	1.36	—
Fawcett et al.[25,26]	24	0%	—	42%	—	1.39

Notes:

- *Cohen's* h *is a standardized index of effect size; an* h *of 0.50 is "medium" and an* h *of 0.80 is "large."*
- *Cochran-Mantel-Haenszel (CMH)* χ^2 *for medication-placebo contrast, stratifying by study is equivalent to 16.25, df=1, p<0.001; CMH* χ^2 *for medication-psychotherapy, stratifying by study is equivalent to 7.11, df=1, p=0.008.*

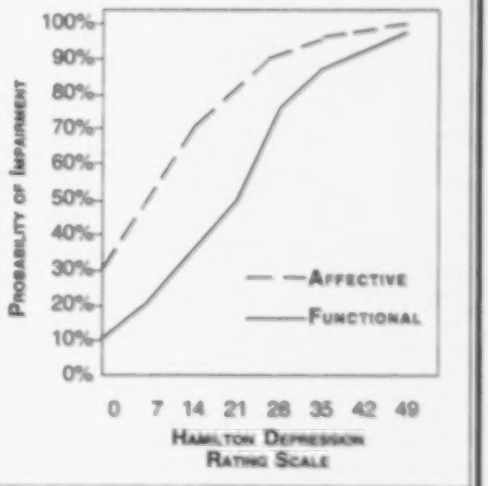
We evaluated this question empirically by analyzing work-outcome data from four controlled studies that contrasted the effects of the tricyclic antidepressants imipramine (Tofranil) and nortriptyline (Aventyl, Pamelor)[24,33,35,36] or the monoamine oxidase inhibitors phenelizine (Nardil) and isocarboxazid (Marplan)[29,30,35,36] with placebo, and two of which directly compared psychotherapy with medication.[24,33] One study[24] contrasted psychotherapy with placebo treatment (Table 8). **Restoration of work capacity was faster with medication than with either placebo or psychotherapy. Of course, the fact that response to drugs may be somewhat quicker for many patients is of little value to the patient who either cannot, or will not, take drugs.** Also, outcomes with **psychotherapeutic modalities** were somewhat variable. One possibility is that **this kind of treatment may be more difficult to deliver consistently from site to site than drug treatment**. Psychotherapy and placebo were comparable in the one study that addressed this issue. However, the placebo condition in that study was a very active and supportive intervention.

RELAPSE AND RECURRENCE:

We also analyzed follow-up data from several studies on the effects of relapse and recurrence on work outcomes. Three independent studies using different intervals, follow-up protocols, and measures indicated that recurrence or relapse during follow-up virtually eliminated any short-term benefits associated with remission during acute treatment.[31-33,37] In the study conducted by Rehm and associates,[37] for example, only 5% of patients who remained stable during the entire follow-up period reported significant negative work events at follow-up, compared with 44% of those who either failed to respond initially or relapsed within 6 months (χ^2=9.42, p<0.002). In another study involving the treatment of severely depressed patients in a hospital setting with 1½ years follow-up,[31,32] 67% of the patients who avoided relapse during follow-up had a good work outcome, versus only 17% of the relapsers (χ^2=4.00, p=0.046). Results were more impressive in this study using an outcome index that combined symptom remission at treatment termination with relapse during follow-up. A total of 78% of the

Figure 1

Probability of Functional and Affective Work Impairment as a Function of Observer-Rated Severity of Depression[2]



Curves are based on separate logistic regression analysis of 17-item posttreatment Hamilton Depression Rating Scale.[10]

patients who achieved remission and avoided relapse had good work outcomes, versus only 22% of those who experienced continuing symptoms or required rehospitalization (χ^2=5.56, p<0.02).

THE SEVERITY OF DEPRESSION:

Figure 1 displays the relations among affective work impairment, functional work impairment, and the severity of depression based on the observer-rated Hamilton Depression Rating scale. Affective impairment is characteristic of milder levels of depression, whereas functional impairment becomes likely only at moderate to severe levels of depression. For example, at **Hamilton Depression Rating Scale scores as low as 8 (7 is the conventional cutoff for normal functioning), the model suggests that more than 50% of depressed patients would show affective impairment. In contrast, functional work impairment would not be reached until Hamilton Depression Rating Scale scores were 18 or higher.** In clinical terms, the likelihood that a patient would experience affective work impairment increased most dramatically as he or she entered the "dysthymic" or "minor" depression range of severity. Comparable increases in functional impairment occurred in the "moderately to severely depressed" range. **A Hamilton Depression Rating Scale above 30 indicates that little additional impairment of either type would be expected.**

Preventive Interventions

Because of the reciprocal interplay of depression and work impairment, preventive interventions that actually forestall depression, lost work time, and diminished productivity may be cost effective. **Employee-assistance programs, which exist in many corporations, might offer ongoing self-screening for depression among the work force. By using measures that tap job satisfaction, confidence, and enjoyment of work, as well as prodromal symptoms of depression, firms might be able to identify persons who are entering a risk period for a depressive episode. Such persons could then be given information about depression and resources for diagnosis and treatment. Conversely, persons who become involuntarily unemployed (e.g., due to reductions in the work force) and are thus at high risk of developing depression could receive training in job-finding skills and other social support.** In fact, a controlled study of this type of preventive intervention reported a significant reduction in depressive morbidity.[9]

Conclusion

It is essential to be careful when extrapolating from clinical research to practice. Every clinical study has significant limitations that constrain both its scientific

validity and its applicability to real-world practice. Clinical samples are highly selective. Research treatment protocols are usually very constrained and thus may not represent the ebb and flow of actual clinical practice. Staffing patterns, assessment instruments and schedules, and all aspects of clinical research procedures probably diverge considerably from everyday practice. Nevertheless, firm scientific evidence (when available) remains the best foundation for general clinical practice, and the scientific method provides the best mechanism for reliable advances in the state of the art.

KEY POINTS:

- **Among nondepressed workers, self-reported work adjustment tends to be very good. Because it is quite uncommon for nondepressed workers to report even mild work difficulties or complaints, such indications may be clinically important early warning signs of depression in some persons.**
- **Among persons with depressive symptoms, functional work impairment manifested by missed time, decreased productivity, and significant interpersonal problems is quite common.** This is particularly true among those who seek treatment for depression, but not uncommon even among those who do not.
- **Reports of any significant behavioral disruption of work**, particularly when the concomitant presence of depressive symptoms is observed, **may suggest the presence of moderate-to-severe depression, warranting careful evaluation and possible treatment.**
- **Even mild subjective complaints of affective work impairment, such as feeling ashamed of one's work, or sudden loss of job interest, particularly in a person who is vulnerable to depressive episodes, deserve careful evaluation. Such complaints may be early warning signs of treatable depression.**
- Work impairment among depressed persons is highly responsive to symptomatically effective antidepressant treatment, given adequate time.
- **The trajectory of outcome for work is much slower than that for the symptoms of depression.** An effective medication can be expected to produce symptom remission in as few as 4–6 weeks. However, **full restoration of work capacity may require 4–6 months.**
- **Psychotherapy appears to be associated with somewhat slower rates of work recovery than tricyclic antidepressants.**
- **Because remission of symptoms accounts**, in large part, **for work outcome in depression, relapses and recurrences can offset any benefits resulting from short-term recovery**. Adequate maintenance treatment is often an important component of the overall treatment plan.

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Questions Based On This Lesson

21. Which of the following statements is false?

A. Persons with major depressive disorder are markedly less functionally impaired than are patients with severe chronic medical disorders.

B. Impairment in occupational or major-role functioning is a common complication with depressive disorders.

C. Stewart and colleagues found that the degree of functional impairment associated with depressive disorders was second only to that associated with advanced coronary artery disease.

D. In data analyzed by Mintz, Mintz, Arruda, and Hwang, more than half (55%) of depressed patients met research criteria for work impairment at the time they entered treatment.

22. According to the authors:

A. It is always possible to determine whether difficulties at work are a result or cause of depression

B. Motor retardation is probably the most crucial determinant of impaired productivity in depressed persons

C. There is no evidence to suggest that reemployment has salutary effects on mental health

D. "Negative symptoms" of depression have no relation whatsoever to work-related dysfunction

23. The Hamilton Depression Rating Scale:

A. Does not include a work item for evaluation

B. Is a self-report test and should never be completed by a clinician or counselor

C. Indicates a risk of functional work impairment when scores reach 18 or higher

D. Should never be used for patients taking medication

24. Which of the following statements is true?

A. Reports of any significant behavioral disruption of work may suggest the presence of moderate-to-severe depression, warranting careful evaluation and possible treatment.

B. A fully accepted standard for determining exactly when a depressed patient should be classified as "impaired" does indeed exist.

C. Research has found that work outcomes tend to be steadily better as the duration of treatment increases, *but only if* symptoms remit completely.

D. Depressive symptom improvements often occur more slowly than improvements in the area of work.

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VOLUME 5 • LESSON 7

Counseling the Learning-Disabled Client

Thomas P. Byrne, PhD

Dr. Byrne is Director of Counseling Services, Curry College, Milton, MA, and a member of the supervising faculty of the Boston Institute for Psychotherapy.

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EDITOR'S NOTE

Working with learning-disabled clients presents a unique challenge to mental health and rehabilitation professionals because the association of learning disabilities with psychopathology is far from clear-cut. One problem with assessing the association is that the studies have been conducted with children at various developmental levels, thereby limiting generalizations. Furthermore, the studies generally have failed to differentiate subgroups of learning disabilities in a population that is far from homogeneous.

However, although Rourke and Fuerst established no identifiable relationship between learning disabilities and a *specific type* of psychopathology, they did confirm a greater risk of psychopathology in learning-disabled persons. Furthermore, the work of Huntington and Bender demonstrates that learning-disabled adolescents experience poorer self-esteem (especially related to school work), greater levels of anxiety, more depressive episodes, and a greater risk of suicide.

Because the psychosocial aspects of learning disabilities are so invariably complex, it is especially crucial for counselors to understand how such disabilities can impede adaptation to environmental demands and lead to emotional problems. For example, *nonspecific effects* (i.e., those caused by varying rates of development in different areas of personality) can inhibit independent thought and action, frustrate the client's sense of self and control over his or her environment, and diminish the ability to process affect appropriately. Narcissistic injuries are commonly encountered in learning-disabled clients as well; these are primarily comprised of insults to the person's sense of competency and his or her self as a lovable person.

Despite the complex issues that surround the treatment of this client population, well-defined guidelines do indeed exist, many of them are outlined in this lesson. Psychological testing is required for an accurate diagnosis and an assessment of neurologic strengths and weaknesses. Dr. Byrne cautions that counselors should not expect to be able to identify clients with a learning disability by mental status alone. A school or work history is a useful tool for assessment, as is a handwriting sample or the client's ability to read consent and intake forms. Counselors also need to be attuned to the different considerations involved with counseling language-disabled clients as opposed to those who have nonverbal learning disabilities. In the end, success with this client group (as is arguably the case with any client) depends upon the counselor's ability to develop a dynamic therapeutic alliance. Working through the anxiety, anger, depression and grief that are intertwined with the learning-disabled client's past, present, and anticipated narcissistic injuries is key in this endeavor.

Terminology

Historically, there has been a **confusing array of labels** for learning disabilities, including **minimal brain damage, perceptual handicap, dyslexia, and neurologic impairment**. The 1960s fortunately brought about some consistency in terminology and definitions. Although a variety of definitions still exist, Johnson[1] pointed out that most of them have **three major components**. **The first component simply excludes learning problems that are caused by other types of pathologic or environmental conditions, such as retardation, sensory loss, emotional disturbance, or lack of instructional opportunity. The second component emphasizes the discrepancy between innate intellectual capacity and learning achievement and performance. The third component indicates that the disabilities are attributable to some factor intrinsic to the person.** There is current debate over whether to include specific reference to underdeveloped social skills in the context of the definition of learning disabled.[2]

Learning Disabilities and the Therapeutic Process

Schulman[3] found that **clients with learning disabilities often report poor psychotherapeutic experiences and complain that counselors do not adequately understand their disability from a cognitive or social development perspective**. To provide effective counseling for learning-disabled persons, counselors must be able to **differentiate between symptoms that are primarily neurologically determined and those that are primarily psychologically determined**. Counselors need to know how the types of **learning disabilities interfere with adaptation to environmental demands**, including those of psychotherapy. In addition, familiarity with the **socioemotional struggles** experienced by learning-disabled clients may is an essential ingredient in establishing a working relationship with them.

Although in the 1960s the term "learning disability" was generally accepted,[4] it was not until 20 years later that learning disabilities were generally recognized as lifelong conditions.[5,6] A learning disability cannot be attributed to a maturational lag; neurologic development does not "catch up."[7] The pathologic-neurologic functioning that interferes with learning in the preschool and elementary school years will continue to interfere with learning and performance throughout the person's life.

Types of Learning Disabilities

There have been numerous attempts to arrive at a consistent taxonomy for specific learning disabilities.[8,9] The DSM-III-R[10] lists learning disabilities as Axis II disorders under the following headings:

- ***Specific Developmental Disorders***
  - Academic Skills Disorders
  - Developmental Arithmetic Disorder
  - Developmental Expressive Writing Disorder
  - Developmental Reading Disorder
- ***Language and Speech Disorders***
  - Developmental Articulation Disorder
  - Developmental Expressive Disorder
  - Developmental Receptive Disorder
- ***Motor Skills Disorders***
  - Developmental Coordination Disorder
  - Specific Developmental Disorder Not Otherwise Specified

For the purposes of educational remediation, many subgroups must be recognized. **When describing psychological needs, it is helpful to group learning disabilities into two categories: those that are based primarily on left-hemispheric deficits or language disorders and those that are based primarily on right-hemispheric deficits, often called nonverbal learning disabilities.**

Persons with language disorders are poor auditory learners. **Poor phonologic ability leads to academic problems** in reading, spelling, and linguistic processing. Language output may be impoverished, or receptive lan-

guage may be compromised. **Even those who appear able to understand and express the spoken language experience difficulty when symbolic, syntactic, or semantic demands are complex. Memory also can be adversely affected** due to inadequate verbal input.

In contrast, persons who suffer from nonverbal learning disabilities are poor visual learners. They can be **impaired in one or two main areas: spatial or social cognition**. In addition, there may be **weaknesses in psychomotor coordination and tactile perception**. Weaknesses in visuospatial ability are initially **manifest in poor arithmetic and handwriting skills; later on, they manifest in reading comprehension and poor organization and synthesis ability. Higher-order concept formation and problem-solving skills may be impaired; moreover, adjusting to novel situations and solving novel problems can be difficult.**

Many nonverbal–learning-disabled persons have poorly developed social skills due to a **limited empathic ability and difficulty in recognizing nonverbal communication clues, such as facial expressions, tone of voice, distance, and posture**. Semrud-Clikeman and Hynd[11] suggested that the social-skills deficit resides not so much in the perception of faces as in the identification of expression and in learning the meaning of the action of others. Adding to social relationship problems are the speech patterns of nonverbal–learning-disabled persons. their **speech is often emotionally flat** and can sound automated and stereotypic.

Etiology

Because the central nervous system is vulnerable to a wide variety of negative influences, learning disabilities most likely **result from any number of genetic variations, biochemical irregularities, prenatal and perinatal insults, and environmental factors**. Persons with learning disabilities differ from those with organic brain damage in that **brain lesions are not found**; however, irregularities in size and shape of various regions of the brain have been recorded through autopsy and magnetic resonance imaging studies. Denckla[12] and Pennington[13] reported summaries of these studies of actual brain structural differences, which to date exist only for left-hemispheric conditions.

After reviewing the literature on specific learning disabilities, Rourke and Fuerst[14] reported that there are **no studies indicating that emotional disturbance can cause learning disabilities**. At the same time, there is a growing body of evidence showing that **childhood disturbances**, usually in the form of **disrupted attachments**, may result in lifelong psychological consequences; moreover, primate studies suggest that early social deprivation can cause changes in brain structure[15]. In researching the **disproportionate number of adopted children who have learning disabilities**, Silver[16] found **the rate of adopted children to be 4.5 times higher than expected in a sample of 225 learning-disabled students**. Although **no causative explanation has been found**, hypotheses would have to include **separation trauma**. Whether or not there are critical periods of cognitive development that can be irreversibly affected by emotional trauma is as yet unknown. At present, we can conclude that learning disabilities are **etiologically heterogeneous**.

Association with Psychopathology

Studies indicate that the relationship between learning disabilities and psychopathology has been **difficult to assess** because of the differing operational definitions of the target population and the criterion measures. Most research has been conducted with children at various developmental levels, which limits generalizations. **Most studies treat learning-disabled persons as if they were a homogeneous population, and few studies differenti-**

ate subgroups of learning disabilities. Given these limitations, **the relationship between learning disabilities and psychopathology cannot be described with great accuracy**. Nevertheless, Rourke and Fuerst[17] have offered several noteworthy generalizations:

- **Not all persons with learning disabilities have concomitant psychosocial disorders. Nor do all learning-disabled persons suffer from poor self-esteem.** In fact, most of them appear to have adequate psychosocial functioning when compared with their non–learning-disabled peers.
- On the other hand, **the risk of psychopathology is greater in persons with learning disabilities**. It is estimated that almost half of learning-disabled persons suffer from some type of psychosocial problem.
- Of the learning-disabled persons who evidence psychosocial problems, there is **no identifiable relationship to a specific type of psychopathology**. It does not appear that there is a greater likelihood for the development of specific neuroses or character disorders. Moreover, there is no conclusive evidence that learning-disabled persons are more susceptible to substance abuse, sociopathy, or delinquency.
- The patterns of neurologic dysfunction found with nonverbal–learning-disabled persons appear to lead more directly to psychopathology. In turn, the **specific weaknesses in the area of social cognition** (i.e., social knowledge and perception) **lead to isolation, depression, and anxiety**.

Restricting their review of the literature concerning adolescents with learning disabilities, Huntington and Bender[17] concluded that when compared with their non–learning-disabled counterparts, **learning-disabled adolescents have poorer academic self-esteem, greater levels of trait anxiety, more reported depressive episodes, and a greater risk of suicide**.

The Effect of Ego Development

Rothstein and associates[18] described two aspects of interdependence between neuropsychological development and psychological development that lead to pathology; i.e., nonspecific and specific effects. **A nonspecific effect can occur when highly varying rates of development exist in different personality sectors.** These uneven lines in a developmental profile **retard growth toward independent thought and action, dilute or frustrate a sense of mastery of self and the environment, and interfere with normal progress in learning how to integrate and channel impulses and affects**. In turn, these problems lead to difficulties in the regulation of self-esteem.

Specific effects refer to the development of particular ego functions that are compromised by neurologic weaknesses. For example, intact linguistic ability is essential in moving from always acting on one's emotions to more mature expressions. **Tolerance for negative affect is increased** when verbal interaction is available for understanding situations as well as for support and soothing. **Gratification may be delayed** when outcomes can be verbally explained and understood. Reality testing is fostered by a child's ability to ask for parental feedback. **Toddlers can expand their exploratory behaviors and gradually separate from parents when parental contact can be maintained verbally. Visuospatial ability is also intimately associated with allowing a child more freedom to explore independently from parents. Deficits in visuospatial ability have the potential for delaying the development of object constancy** because senses other than visual perception and visual memory would have to be relied upon. **The development of recognizing the relationship between cause and effect can be delayed** when children are not able to follow the trajectories in space or to find hidden objects. In summary, ego development is so intimately woven with neuropsychological

development that most neurologic weaknesses will result in some form of delayed or incomplete ego functioning.

SELF-ESTEEM:

Although Rourke and Fuerst[11] concluded that the connection between the general learning-disabled population and poor self-esteem is equivocal, many researchers[12, 22] reported that self-esteem issues are a major concern to learning-disabled clients referred for psychotherapy and counseling. Relying on Kohutian concepts, Palombo[22] traced the roots of self-esteem problems to **early perceptual disturbances that interfered with the natural development of the grandiose self and the idealized parental imago**. Instead of reveling in their growing mastery of their world, **learning-disabled children are often perplexed and frustrated. Instead of admiring parental, all-powerful capacities to soothe and mirror, learning-disabled children see their parents as unempathic.** A cohesive sense of self is never well established, resulting in symptomatic behavior generated to preserve a more fragile sense of self.

Byrne and Crawford[12] have similarly described **two types of narcissistic injuries** encountered by learning-disabled persons. The most obvious type is **insult to a sense of competency**. Learning-disabled persons simply cannot avoid or compensate for all tasks that pronounce them less capable than their peers. The second type of narcissistic injury is an **insult to self as a lovable being. Learning-disabled persons perceive their parents' anxieties, frustrations, and disappointments and/or project their own negative affect onto parents. Later, the effects of social immaturity and/or social cognitive weaknesses reinforce the sense of not being lovable.**

MODERATING VARIABLES:

Although nonverbal–learning-disabled persons are predominantly at risk for concomitant psychoemotional disturbances directly due to the nature of the disability itself, there are **a number of moderating variables that may increase the risk for all subgroups. Chief among these variables is the severity of the disability.** The greater the discrepancy between innate intelligence and the ability to use that intelligence, the greater the probability for frustration, self-doubt, and self-deprecation. Spreen[23] demonstrated this fact when he conducted follow-up assessments on three groups categorized by the level of neurologic impairment and compared them with a matched control group. Not only did all learning-disabled groups evidence greater emotional maladjustment and more antisocial behavior than did the control group, but the level of maladjustment corresponded to the level of neurologic impairment.

Along with the level of impairment, **the degree of family support is a crucial variable**. All stages of parent-child relationships are confounded by the presence of a learning disability. **The parental balancing act of providing support and encouraging independent growth becomes immensely more difficult.** It is not easy for concerned parents who fill voids in their child's adaptive capabilities to know when and how to retreat; and it is difficult for them to avoid becoming frustrated and then emotionally abandoning the child.

Even if it were possible for parents to be perpetually supportive and positive, learning-disabled children often project their own self-disappointment onto their parents. Palombo and Feigon[24] reported that **learning-disabled children find it difficult to obtain satisfaction from their caregivers and often resort to manipulation in order to gain this satisfaction**, thereby setting off a cycle of mutual frustration between parents and children. A further complication of parent-child dynamics occurs when one of the parents has a learning disability. It is an arduous task for a learning-disabled parent not to be biased by an assortment of emotional responses elicited by his or her child's struggle.

In addition to the difficulty of providing a supportive family environment is the fact that **learning-disabled children often are outdistanced by their siblings**. Although learning-disabled children have difficulty in competing with their non–learning-disabled siblings, the **siblings may resent the extra parental attention paid to the learning-disabled children**. All members of the family usually are taxed emotionally. Those families with additional systematic problems pose serious threats to the well-being of the learning-disabled child because he or she can readily serve as the family scapegoat.[15]

The age at which a person is diagnosed as having a learning disability may be an important factor that mediates the relationship between learning disabilities and psychopathology.[24] Many learning-disabled students who are **diagnosed late** in their academic careers or in adulthood have suffered not only from being **deprived of needed remedial assistance and support, but also from being misdiagnosed as retarded or labeled as lazy, unmotivated, or oppositional**. Although angry at being misunderstood, they were, of course, unable to provide an alternate explanation for their academic underachievement. Despite the current popularity of the concept of learning disabilities in addition to the inclusion of many false-positives, late diagnosis is still very much a reality. **Although early diagnosis has yet to be empirically proven as a prophylactic measure for psychosocial problems, it has been found to be a critical variable for improved educational prognosis.**[26]

On the other hand, **early diagnosis can present a mixed blessing**. Montgomery-Kasik and colleagues[27] contended that the **stigma** of being relegated to resource rooms and other types of **alienation** is at least **equally harmful to self-esteem**. Indeed, **many learning-disabled adults remember their trips to the resource room or to special education classrooms with much anger and shame.**

In addition to the degree of family support and the timing of diagnosis, **the pressure to succeed academically and vocationally is most likely an important variable linking learning disabilities and psychopathology. The greater the discrepancy between self-perceptions and ideal self, the greater the risk for problems related to low self-esteem.** Societal expectations generally play an important role in the creation of the ideal self. Pressure to achieve academically **varies from family to family and from community to community**. To be sure, in cultures where reading ability is relatively unimportant for social status, many dyslexic persons would not be recognized as disabled. In cultures where singing is a paramount activity, those with dysmusica (the inability to sing in the proper key and tone) would be considered quite disabled.

Implications for Treatment

Just as the specific psychoneurologic pattern is idiosyncratic for each person with a learning disability, presentation in counseling and psychotherapy will be unique. **Counselors will not be able to identify clients with a learning disability by mental status alone.**[1] In cases in which the client is not self-identified as learning disabled, the counselor may become alerted to the possible existence of a learning disability from a **school or work history or by listening for complaints that school, work, or household demands are frustrating**. Other clues that will assist the counselor in the initial screening will be a **handwriting sample or the client's ability to read confidentiality and other intake forms**. However, **psychological testing is always necessary for an accurate diagnosis** as well as for **assessment of psychoneurologic strengths and weaknesses**.

Counseling a learning-disabled client is particularly challenging, even with testing results, it is **difficult to determine which areas of dysfunction are based in psychoneurologic dynamics and which areas are psychogenic**. As learning-disabled children begin to defend themselves from the narcissistic injuries of academic and social frustrations, some of their defensive

armament and symptoms either exacerbate or mimic the symptoms attributable to a neurologically based learning disability. If ego functions have been underdeveloped as well, the resultant areas of dysfunction present an enmeshment that neither counselor nor client can readily separate.

The area of neurologic weakness is constant over time. This is the basis for the lifelong, irreversible disability. As the child ages and is faced with greater and greater academic, social, and motor demands, the learning disability becomes more pronounced. If ego functions also have been compromised by the neurologic weakness, they too become more apparent as the child matures chronologically. The extent of the dysfunction attributable to the learning disability and to faulty ego development depends on the severity of the neurologic weakness, the level of environmental support, and the degree of social pressure to achieve. Repeated insults to self-esteem can result in a variety of maladaptive adjustments, expanding the areas of dysfunction.

The counselor and client can form an alliance around the mutual goal of differentiating the areas of dysfunction and alleviating those areas that are reversible. With help from special-education professionals, the area of dysfunction attributable to the learning disability can be reduced through **remedial work and compensatory strategies**. For example, language-disabled clients can learn techniques to improve the visual paths of learning.

THE NATURE OF RESISTANCE:

In attempting to help clients reduce areas of dysfunction, strong resistance may be encountered. As with all clients, the purpose of symptomatic expression is to **protect them from experiencing psychic pain**; in behavioral terms, **the symptomatic responses are negatively reinforced when learning-disabled clients avoid or escape from further insults. Hiding from or denying a learning disability is not uncommon.** Falvo[28] suggested that **denial, avoidance, and regression in the form of passivity** are common among persons with chronic disabilities and that denial and avoidance are particularly problematic for persons with invisible disabilities, from which it is obviously easier to hide. The range of "hiding from" can extend from complete denial (e.g., "I don't really think I have a learning disability") to more subtle forms (e.g., "If I can make the Dean's list, that will prove that my learning disability is not really a disability"). Many learning-disabled students who have received much help in identifying their particular pattern of cognitive strengths and weaknesses are unable to describe the same pattern to others. This often represents avoidance and denial.

Hiding behind a learning disability is another common form of **resistance to change**. Typical manifestations of this avoidance behavior include **attempts to manipulate others through overdependent behaviors and learned helplessness**. Canino[29] presented strong arguments for considering the presence of learned helplessness for many learning-disabled students. It is possible for some clients to alternate between "hiding from" and "hiding behind," depending upon the demands of the situation. Schulman[1] suggested that once the alliance has been firmly established, defenses must be confronted.

BUILDING AN ALLIANCE:

An understanding of past, present, and anticipated narcissistic injuries may be the essential ingredient for building a therapeutic alliance. Anxiety, anger, depression, and grief are common emotional reactions for clients with chronic disabilities.[29] Counselors should **learn how these emotional reactions are generated** from the particular pattern of narcissistic injuries experienced by learning-disabled clients. **Those with language disabilities live in a world where only foreign languages are spoken.** Although most of them gradually gain some mastery of the "foreign language," they are **never completely competent**. In school, they are expected to compete with students who speak the "native tongue." They are expected to read and spell words for

which they have not developed an ear. Lessons in history, arithmetic, and geography take longer to assimilate because lectures and textbooks are in this foreign language.

College entrance exams and civil service exams also are written in this foreign language. Dispensation from time constraints helps, but does not equalize the opportunity. **Fear of not being able to read maps and road signs, of having to play work games at a party, and of other types of public exposure persists continually.**

Nonverbal–learning-disabled persons live in a foreign land where their native tongue is spoken, but **social custom and mores remain mysteries**. The inhabitants of the foreign land have strange and **indecipherable ways of gesturing and communicating nonverbally** and are reluctant to translate them. **Not knowing what is socially expected and being awkward** in the nonverbal communication patterns of this foreign country, nonverbal–learning-disabled persons are **isolated and lonely**. In this foreign land, it is easy to get lost because the landscape, streets, and landmarks are unfamiliar. Travelling to new locations is anxiety producing.

When counselors are successful in forming an alliance and working through the various levels of anxiety, depression, and anger that may be present, **the final task is usually working through the grief**. Because any disability represents a loss, acceptance of the disability necessitates grieving the loss.

WORKING WITH LANGUAGE-DISABLED CLIENTS:

There may be no need for an adjustment in therapeutic style when working with language-disabled clients, depending upon the severity of the disability. Despite their linguistic impairment, most clients are not confused by the "talking cure" because one-to-one communication is easily adjusted to keep pace with linguistic processing capabilities. However, because they have had much practice in disguising their confusion and misunderstanding—especially in the classroom setting—**it is inadvisable for counselors simply to assume that what they say is being understood**.

Language-disabled clients may find it **difficult to articulate their reasons for seeking counseling, current or past affective states, and intrapersonal and interpersonal dynamics**. Occasionally, it becomes **difficult to differentiate resistance from expressive language problems**. Counselors who prefer to be relatively inactive may need to talk more and label emotional states and psychodynamics for these clients. The **use of metaphors rich in graphic content can be helpful**. It can also be **worthwhile for both counselors and clients to use drawings and diagrams**.

WORKING WITH NONVERBAL–LEARNING-DISABLED CLIENTS:

Although the majority of language-disabled clients may be relatively silent, **nonverbal–learning-disabled clients may be hyperverbal**. They **often attack the outside world through their own worlds and do not pay attention to the effects of their verbal forays**. Clients with deficits in social cognition present many therapeutic challenges. Although learning-disabled clients generally tend to be **socially and emotionally immature**,[50] this is particularly true for nonverbal–learning-disabled clients. **Young adults often present much like adolescents or even preadolescents. Their problems are almost always externalized because they see themselves as victims of uncaring others.** They will usually complain of **social isolation**.[51] Differentiating between social cognitive deficits and characterologic disorders becomes problematic.

Socially inappropriate behavior may be demonstrated within the therapeutic hour. Asking to use the counselor's phone before, during, or after a session is an example of a nonverbal–learning-disabled client's inability to determine what is appropriate behavior in a novel setting. This is not acting-out behavior, nor does it necessarily have any significant meaning for the client-counselor relationship.

Counselors may have to be active in helping nonverbal–learning-disabled clients interpret their interpersonal world because they will be confused by social rebuffs, manipulated, and ridiculed. In addition to counseling, **participation in programs designed to improve social skills is recommended**.[12,31,32]

Greenspan[33] suggested that **the most common countertransference experiences with clients with slight neurologically based impairment are overprotection and withdrawal**. This may be especially true when working with nonverbal–learning-disabled clients because their social deficits invite overinvolvement. Their communication patterns, characterized by the **lack of affective modulation and limited ability to identify their own feelings, can lead to boredom and withdrawal**. The tangential quality of their speech and the lack of prosody may lead counselors to underestimate the importance of the therapeutic relationship. Often, the weekly session is the one time when these clients can feel safe in a relationship, with someone listening without rejection and misunderstanding.

Conclusion

Rourke and Fuerst[14] contend that most learning-disabled persons are free of psychosocial abnormalities; and Sanders[34] reminds us that some learning-disabled persons will present with psychopathology that is unrelated to their learning disability. Nevertheless, there is an increased risk for psychopathology in learning-disabled persons, and the resultant psychosocial dysfunction is generally enmeshed in neurologically based and psychologically based disorders. Therefore, successful treatment of learning-disabled clients largely depends on counselors' knowledge of the types of neurologic developmental weaknesses and their effects on cognitive development, ego development, self-esteem, and social skills.

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Questions Based On This Lesson

25. Which of the following statements is false?

A. Nonverbal learning disabilities are primarily based on left-hemispheric deficits.

B. Weaknesses in visuospatial ability are initially manifest in poor arithmetic and handwriting skills.

C. Persons who suffer from nonverbal learning disabilities are poor visual learners.

D. Persons with learning disabilities differ from those with organic brain damage in that brain lesions are not found.

26. Each of the following is considered a moderating variable in determining the effect of a learning disability on ego development *except*:

A. Degree of family support

B. Narcissistic insults to a sense of competency

C. Severity of the disability

D. The age of the person when diagnosed

27. Which of the following statements is true?

A. Because an early diagnosis of a learning disability has not been empirically proven to be a prophylactic measure for psychosocial problems, it is not regarded as a critical variable for improved educational prognosis.

B. It is almost always possible for rehabilitation professionals to identify clients with a learning disability by mental status alone.

C. According to the author, psychological testing is always necessary for an accurate diagnosis of a learning disability.

D. The area of a neurologic weakness varies over time.

28. Which of the following statements is false?

A. Typical manifestations of "hiding behind" a learning disability include attempts to manipulate others through learned helplessness.

B. Anxiety, depression, and grief—but not anger—are common emotional reactions for clients with chronic disabilities.

C. The most common countertransference issues with clients with slight neurologically based impairment are overprotection and withdrawal.

D. It is inadvisable for counselors simply to assume that what they say is being understood by language-disabled clients.

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Neuropsychological Assessment for Persons with Sensory Impairments

Linda Mathias Kaskel, PhD, CVE, CRC

Dr. Kaskel is a rehabilitation psychologist practicing at Schwab at Anixter Center in Chicago, IL. She has worked as a vocational evaluator and rehabilitation specialist for persons with developmental disabilities, sensory impairments, and work-related injuries.

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EDITOR'S NOTE

At the time of this writing, the rehabilitation profession lacks psychometrically sound testing systems for persons with sensory impairments. In this lesson, the author discusses how neuropsychological assessment, which helps identify the relationship between brain functioning and clinical problems, can be successfully adapted for use with clients who have sensory impairments. Different neuropsychological tests are useful for different measurements, and thus must be used appropriately.

The Halstead-Reitan Battery tests attention, concentration, and memory; measures verbal abilities; tests spatial, sequential, and manipulatory abilities; and measures abstraction, reasoning, logical analysis, and concept formation. The Luria-Nebraska Battery contains eleven scales: motor, rhythm, tactile, visual, receptive speech, expressive speech, writing, reading, arithmetic, memory, and intellectual processes. The McCarron-Dial System describes the impact of disability on personal, social, and vocational outcomes for people with neuropsychological impairment; it measures verbal-spatial-cognitive, sensory-motor, and emotional-coping factors. Finally, the Comprehensive Vocational Evaluation System evaluates the work potential and independent living skills of visually impaired or blind persons.

The author stresses the importance of procedural considerations for testing persons with sensory impairments. Testing modifications should be used to compensate for the impairment as best as possible. When factors such as temperature, noise, lighting, time, and presentation of instructions are adjusted so that the test results reflect the person's actual abilities, these areas can be assessed more accurately.

Introduction

Every day in the United States, thousands of people with disabilities participate in an assessment to aid in planning their vocational choices, rehabilitation programming, and job-placement decisions.[1] The technology used in such assessment processes has been refined and improved in recent years.[2] However, **there is a striking lack of psychometrically sound evaluation systems designed and normed for the substantial number of persons with sensory impairments.**[3-5] Such deficiencies create serious obstacles for the successful evaluation and rehabilitation of this client population.

Defining Sensory Impairment

Not all persons with impaired hearing use sign language or amplification to communicate, and not every person with a visual impairment can use braille or closed-circuit enlargement systems. **Although often considered separately, there are similarities between persons with hearing impairments and those with visual impairments.** These similarities can range from a mild or partial loss to a profound or total loss. The onset of the impairment can be gradual or sudden, affecting functioning and rehabilitation.

HEARING IMPAIRMENT:

The term "hearing impairment" indicates a hearing disability that may range in severity from mild to profound; it includes the subsets of deaf and hard of hearing. A deaf person's hearing disability precludes successful processing of linguistic information through audition, with or without a hearing aid. A hard-of-hearing person is one who, generally with the use of a hearing aid, has sufficient residual hearing that enables successful processing of linguistic information through audition.[6]

Hearing impairment can be defined by the degrees of hearing sensitivity loss measured in decibels (db). On an audiogram, zero represents "normal" hearing; larger numbers mean more power is needed to cross the hearing threshold. A hearing threshold level of 27–40 db is considered a mild loss; a moderate loss is 41–55 db; a moderately severe loss is 56–70 db; a severe loss is 71–90 db; and a hearing impairment of 91 db or greater is in the profound range.[7]

Hearing impairments also can be defined by the location of the loss. *Conductive hearing loss* is the decrease of sound sensitivity produced by abnormalities of the outer ear and/or middle ear. *Sensorineural hearing loss* is the decrease of sound sensitivity produced by abnormalities of the inner ear or nerve pathways beyond the inner ear to the brain. *Mixed hearing loss* is the sum of the hearing losses produced by abnormalities in both the conductive and sensorineural mechanisms of hearing.[7]

Furthermore, hearing impairment can be defined by onset in relationship to language acquisition. *Prelingual deafness* is impaired hearing present at birth or early in life, at an age before the development of speech or language. *Postlingual deafness* is hearing impairment that occurs after the development of speech and language.[8]

Genetics, illness, trauma, and environmental factors can contribute to hearing impairments. Vernon and Andrews[9] reported more than 50 deafness-linked syndromes. Glass and Sutherland[10] reported that nearly 30% of childhood deafness is genetic in origin, and approximately 60% of inherited deafness is "undifferentiated." It often is difficult to identify the etiology due to the gap in time between birth and diagnosis. The prevalence figures vary due to different definitions of hearing impairment. In 1971, a census of persons with hearing impairment was conducted; at that time, it was reported that nearly 13 million people had a significant loss of hearing.[11] Vernon and Andrews[9] reported a relatively high prevalence of brain dysfunction in the hearing-impaired population.

VISUAL IMPAIRMENT:

The visual system and the brain are closely integrated. The tracts of the visual system project the entire length of the brain. **Visual deficits can be caused by congenital malformations, disease, degeneration of the nerves, or damage to the brain.**[12] **Functions of the visual system disrupted by an injury to the brain include accommodation (eye focus ability), convergence (eyes turning inward to see single images), oculomotor (eye movement skills), and fusional capabilities (integrating images).** Impairments to the visual system may affect mobility, posture, balance, and/or the ability to perform essential daily tasks.[13]

The term "visual impairment" means any deviation from the generally accepted norm that affects central visual function, peripheral visual function, binocular visual function, or color perception. Central vision function provides keen sight and is needed for reading printed material. Peripheral vision provides critical sight in dim light and is needed for awareness of movement and mobility. Binocular vision provides for depth perception and is needed for perception of dimension. Color perception can affect the correct labeling of shades and tones of color. Loss of color vision may be associated with night blindness or other central visual field losses. The deviation in vision may be anatomic or functional, partial or total, temporary or permanent, and reversible or progressive.[14]

Visual impairment often is measured using a Snellen test, which consists of nine lines of letters on a chart. "Normal" distance acuity for reading the letters on the chart is represented by the figure that resembles a fraction. The number is interpreted as the distance from the person to the chart over the distance at which a person with average vision would be able to read the line clearly. Legal blindness is central visual acuity not exceeding 20/200 in the better eye with correcting lenses. For acuity less than 1/200, vision can be categorized as CF (counts fingers), HM (hand movements), LP (light perception), NLP (no light perception), or total blindness. Visual acuity better than 20/200 but with limits to the central field of vision of such a degree that its widest diameter subtends an angle of no greater than 20 degrees also may be defined as legally blind.[14] A total loss in peripheral vision often is referred to as "tunnel vision."

As is the case with auditory impairments, genetics, illness, trauma, and environmental factors can contribute to visual impairments. Glaucoma, diabetes, and cataracts are the primary causes of visual impairments in adults. **Although there are no direct measures available associating the co-occurrence of visual impairments with neuropsychological impairments, these figures can be extrapolated from significant sources.** The National Health Interview Survey[15] calculated that 17.4 million people in the United States have a work disability. Also, the National Institutes of Health estimate that more than two million persons annually are involved in accidents that result in head injury. According to the National Institute on Disability and Rehabilitation Research (NIDRR),[16] the prevalence of visual impairments occurs at a rate of 38.9/1000 persons. One million Americans are estimated to be "severely visually impaired."[17] "Visual system dysfunction following traumatic brain injury (TBI) has devastating effects on the patient's ability to function independently. It is therefore surprising that the evaluation and treatment of these deficits have only recently come to the forefront of care."[18]

Neuropsychological Assessment

Three types of psychometric assessment commonly referenced in rehabilitation literature are psychological, vocational, and neuropsychological. Psychological tests are used to measure differences between individuals, such as the presence of mental retardation. Psychological assessments also may be used to document

responses of the same individual on different occasions.[19] Vocational assessment is a comprehensive process that identifies a person's functional capacities and educational, training, and placement needs.[20] **Neuropsychological assessment applies to a variety of measures to develop an understanding of brain functioning in relationship to clinical problems.**[21]

The field of neuropsychology combines the knowledge of neuroscience, physics, and medicine to aid in the development and validation of noninvasive assessment techniques. The neuropsychological approach has been used to evaluate patients with cerebral lesions, identify their deficits, and infer brain-behavior relationships. Neuropsychological assessment is useful in diagnosis, treatment planning, outcome follow-up, and research.

Structural abnormalities can be identified through imaging technology such as computerized tomography (CT), magnetic resonance imaging (MRI), and positron emission tomography (PET). With repeated administrations, these diagnostic tests also can document changes in brain structures. However, imaging tests provide little information regarding a patient's functional status or level of cognitive capacities. Moreover, these technologies have not been able to predict functional adaptation to brain damage. **The combined use of imaging and neuropsychological testing plays an important role in the diagnosis of neurobehavioral deficits after head injury.**[22]

Neuropsychological assessment has moved from the detection of brain damage toward the definition of specific cognitive functions.[23] **A neuropsychological test battery must be able to measure a full range of behavioral functions subserved by the brain.**

HALSTEAD-REITAN BATTERY:

The Halstead tests have been widely used in the United States for more than 4 decades.[24] The original items, developed in Halstead's laboratory in Chicago and described in *Brain and Intelligence: A Quantitative Study of the Frontal Lobes*,[25] were not intended to be included in a fixed, standard battery for clinical assessment. Halstead's approach was a significant parting from the medical model of assessment, and he continued to explore and change the methods of assessment and analysis.[26]

Today, the Halstead-Reitan Battery is a standardized, fixed battery designed to measure a comprehensive set of neuropsychological functions. The battery consists of four areas of tests: tests of attention, concentration, and memory; measures of verbal abilities; tests of spatial, sequential, and manipulatory abilities; and measures of abstraction, reasoning, logical analysis, and concept formation.[27] The various tasks range in difficulty and require both immediate problem solving and recall of stored information. The results of the measures can be examined by level of performance, compared with bilateral performance, and interpreted for patterns of performance and pathognomonic signs. Russell, Neuringer, and Goldstein[28] extended the impairment index to a neuropsychological key that provided fertile clinical and experimental data.

The initial approach in developing the Halstead-Reitan Battery included comparing persons without evidence of brain damage with patients known to have diversified cerebral damage (heterogeneous types of lesions in various locations). These comparisons were used to identify the tests that were sensitive to the general condition of cerebral hemispheres. Reitan[29] demonstrated that the Halstead-Reitan Battery was more sensitive to brain dysfunction than the tests in the Wechsler-Bellevue Intelligence Scales. Filskov and Goldstein[30] compared the Halstead-Reitan impairment index and a variety of diagnostic neurological tests and found the neuropsychological battery had a corrected accuracy rate of 0.89, compared with brain scans (0.36) or angiogram (0.80).[30] They concluded that **the neuropsychological battery seemed to meet a general need for a highly accurate screening instrument when the more traditional low morbidity/mortality neurological screens failed to identify neuropathological conditions.**

The Halstead-Reitan Battery has been researched in great detail.[31] **Many studies have used various statistical techniques to document the validity of this battery for evaluating the neuropsychological functioning of different neurological and psychiatric disorders.**[30,32,35] Consequently, it has been shown to be a reliable and valid instrument in identifying brain damage in an average population. **Although many subtests can be administered in a modified fashion for persons with sensory impairments, validation studies of this method have not been conducted.**[34]

LURIA-NEBRASKA BATTERY:

Russian neuropsychologist Luria contributed a second model to the field of neuropsychology. His trilevel model of brain functioning hypothesizes how information is processed and integrated. Luria's initial research was conducted around the time of World War II but was not translated into English until the 1960s. Christensen[35] was the first investigator to develop a standardized set of materials and syndrome summaries from Luria's published works. She produced a manual of specific tasks, a text correlating signs and likely lesion locations, and a set of boxed pictorial cards for administration of various Lurian techniques. These test items were employed in a drastically different manner from that practiced by Luria, who never used or advocated the use of a standardized battery.[26]

Today, the Luria-Nebraska Battery is a flexible battery of 269 items grouped into 11 ability scales: motor, rhythm, tactile, visual, receptive speech, expressive speech, writing, reading, arithmetic, memory, and intellectual processes.[36] Three other clinical scales are derived from the Luria-Nebraska Battery items: pathognomonic, left hemisphere, and right hemisphere.

The literature supports the contention that the Luria-Nebraska Battery is a reliable and valid instrument for the assessment of neuropsychological functioning. It has been shown to produce a relatively stable set of scores over time. Results from the Luria-Nebraska Battery can discriminate patients with brain damage from those without brain damage at a level approximately equal to that of the Halstead-Reitan Battery. The Luria-Nebraska Battery also has been found to correlate highly with other psychological tests and physiologic measures and to display sensitivity to disorders that would be expected to cause disruption in cognitive processing.

During the initial development of the Luria-Nebraska Battery, Golden, Purish, and Hammeke[37] sought to ascertain the degree to which the battery could be scored reliably. Using five independent sets of raters, the researchers obtained a 95% agreement rate; correlations of raw scores ranged from 0.97 to 0.99. Golden, Berg, and Garber[38] obtained a test-retest reliability coefficient of 0.88 between the T scores of the 11 ability scales and 2 sensorimotor scales. Mikula[39] obtained alpha-coefficients ranging from 0.82 to 0.94 on the 14 clinical scales. Moses, Johnson, and Lewis[40] further investigated the battery's internal consistency by computing separate alphas for each of three diagnostic groups.[40] They concluded that adequate reliability is present to justify the clinical use of the 14 summary scales. **The literature demonstrates the usefulness of the Luria-Nebraska Battery for prediction and diagnosis; however, there is no research that discusses the validation or prediction rates of this battery in persons with sensory impairments.**

McCARRON-DIAL SYSTEM:

The McCarron-Dial System, an extensively researched evaluation system,[2] is based on a neuropsychological model that incorporates Luria's concept of brain function.[41,42] **The McCarron-Dial System measures and describes the impact of disability on personal, social, and vocational outcomes for people with neuropsychological impairment.**[43]

Three areas measured by the McCarron-Dial System are the verbal-spatial-cognitive, sensory-motor, and emotional-coping factors.[44] **The verbal-spatial-cognitive factor reflects a person's ability to think abstractly, conceptualize, use language, and perform operations involving numbers, language, or visual-spatial symbols.** The verbal-spatial-cognitive factor is measured by the Wechsler Adult Intelligence Scale–Revised (WAIS-R), the Wide Range Achievement Test–Revised (WRAT-R), and the Peabody Picture Vocabulary Test–Revised (PPVT-R). **The sensory-motor factor relates to a person's ability to receive information through the various senses, to integrate sensory information across modalities, to associate new information with previous experience, and to make an appropriate or adaptive motor response to a factor.** The sensory-motor factor is measured by the Haptic Visual Discrimination Test (HVDT), the Bender Visual Motor Gestalt Test (BVMGT), and the McCarron Assessment of Neuromuscular Development (MAND). **The emotional coping and adaptive behavior factor encompasses emotional components of behavior and general adaptive behaviors.** This factor is measured by the Observational Emotional Inventory–Revised (OEI-R), the Emotional Behavioral Checklist (EBC), the Behavior Rating Scale (BRS), the Street Survival Skills Questionnaire (SSSQ), and/or the Survey of Functional Adaptive Behaviors (SFAB).

The McCarron-Dial System originally was validated for use as a vocational evaluation system.[45] Five factors were hypothesized as predictive of the "general vocational competency" of persons with neuropsychological disabilities. The criterion "general vocational competency" was defined in terms of vocational performance levels (as measured by the San Francisco Vocational Competency Scale [SFVCS]),[46] and productivity, as measured by the Fishing Tackle Assembly Task (FTA).[47] The McCarron-Dial System was administered to 200 neuropsychologically disabled clients upon their initial entry into various rehabilitation programs.[48-50] **Results indicated that the McCarron-Dial System's neuropsychological variables were highly predictive of work performance levels (ranging from day care, work activity, and extended employment to transitional-community programming) and productivity.** In general, subsequent studies have substantiated the high criterion-related validity of the McCarron-Dial System.

Extension of the McCarron-Dial System for neuropsychological evaluation was reported in two validation studies.[51,52] Dial and Chan[51] proved the diagnostic validity of the McCarron-Dial System as a neuropsychological evaluation battery by administering the abbreviated version of this system to 92 state vocational rehabilitation agency clients with clearly documented brain damage and to a comparison group of 39 psychiatric patients without brain damage. Of the 21 McCarron-Dial System neuropsychological indicators, 10 were found to be significant in differentiating patients with brain damage from those without brain damage. In addition, **89% of the patients were correctly classified using the discriminant function. The agreement between the McCarron-Dial System classification and the medical classification also was computed to be significant at a level exceeding chance.**

Dial, Chan, and Norton[52] further investigated the discriminative validity of the McCarron-Dial System for neuropsychological evaluation using a sample of 92 rehabilitation clients with brain damage and 30 without brain damage. Approximately 70% of the clients were correctly classified, which is significantly better than the base rate. **The results suggested that the discriminative validity of the McCarron-Dial System is comparable to the Halstead-Reitan and Luria-Nebraska batteries in identifying and localizing cerebral damage.**

ADAPTED INSTRUMENTS:

Some assessment instruments have offered instructional materials on videotape or interactive video disk;

however, this practice is not uniformly accepted or readily available for neuropsychological batteries. If the practitioner is not fluent in sign language and it is the primary language of the client being evaluated, a certified interpreter will be necessary.

Using new instruments and adapted versions of McCarron-Dial System instruments, the Comprehensive Vocational Evaluation System (CVES) was developed to accommodate persons with visual disabilities. CVES is an assessment instrument developed particularly to evaluate the work potential and independent living skills of visually impaired or blind persons. It offers standardized directions that use verbal instructions and tactile models. The standard administration controls for various levels of residual vision. The norms represent a wide range of people with visual impairments; therefore, the instrument does not require modification or adaptation. CVES has been shown to be a useful vocational evaluation[51] and neuropsychological battery[54] for persons with both visual impairments and brain damage.

Components of Neuropsychological Assessment

Seven areas frequently covered on a comprehensive neuropsychological assessment are attention and concentration, verbal function, perceptual function, motor function, constructional ability, memory, and higher cognitive function.

ATTENTION AND CONCENTRATION:

Tests of orientation measure a person's awareness of self in relation to time and surroundings. The ability to focus behavior and sustain attention also is measured. These tests can be modified for persons with sensory impairments; the questions and the responses can be given in speech, sign language, or writing. **It is critical to assess these rudimentary skills before measuring more complex cognitive functions.**

VERBAL FUNCTION:

Tests of verbal function are designed to measure the ability to produce spontaneous speech in a clear and meaningful manner. While testing, it is necessary to separate verbal function from historically low achievement levels in reading and language. Verbal function tasks may include reiteration of words, repetition of phrases, tests of naming, spontaneous speech, and written expression. It is also possible to present verbal information in sign or written form. However, it should be noted that American Sign Language does not maintain the same grammatical order as written English; therefore, interpretation of results must be performed with the utmost care.

PERCEPTUAL FUNCTION:

Perceptual function can be subdivided into measures of tactile, visual, and auditory processing. Sensation, inattention, and recognition are measured with different tactile procedures, such as manipulating hidden three dimensional objects or finger writing. Visual perceptual functioning can include inattention, scanning, color perception, and object recognition. Organization and interference are measured by presenting ambiguous, incomplete, fragmented, or overlapping visual stimuli. Presenting tactile or visual perceptual tasks to people with impaired hearing requires little modification of the test. However, many of these tasks cannot be presented in the standardized form to persons with visual impairments. In the Comprehensive Vocational Evaluation System, different shapes, sizes, and textures are used as analogues. Auditory acuity, comprehension, discrimination, and inattention are important perceptual functions. However, these tests cannot be administered to persons with moderate to profound hearing impairments.

MOTOR FUNCTION:

In addition to manual dexterity, tests of motor function are designed to measure one's ability to initiate, maintain, and coordinate movements. These

tests also measure a person's ability to integrate motor activities with speech and verbal thought. Although these tests can be administered in a near-standardized manner, persons with sensorineural hearing impairments often have decreased balance and coordination skills.

CONSTRUCTIONAL ABILITY:

Tests for constructional ability include the ability to combine perceptual activity with motor responses. During the evaluation, clients are asked to copy figures, perform free drawing, and build two-dimensional and three-dimensional models. With sufficient instructions, a person with a hearing impairment can attempt to perform these tasks. Constructional tasks are difficult to administer to persons with severe visual impairments, and test results from persons with residual vision must be interpreted with care.

MEMORY:

Tests of memory include attending to incoming stimuli, storage and retrieval of information, interference, and preservation. Memory tests often begin by presenting digits, letters, symbols, words, and sentences for immediate recall. Paragraph-length material, geometric designs, and motor sequences also may be presented for short-term recall, depending upon the nature of the sensory impairment. Remote or long-term memory is measured as well. Memory tasks must be modified for the client to maximize storage and retrieval functioning rather than highlighting sensory deficits.

HIGHER COGNITIVE FUNCTION:

Tests of higher cognitive function measure the ability to organize, integrate, and process various types of incoming information. Functioning on tasks that require abstract reasoning, arithmetic calculation, problem solving, and cognitive flexibility is examined. The ability to plan and carry out goal-directed activities is also measured. Many of these tests can be administered to people with sensory impairments; however, it is important to consider academic history and achievement levels separately from interpretation of higher cognitive test data.

Procedural Considerations

Testing should aim to provide optimal conditions that enable the person to do his or her best on the tests. Testing should not be discontinued solely on the basis of a sensory impairment. In the absence of commercially available instruments, properly trained clinicians need to modify existing materials rather than decide not to gather any information at all. **The concept behind any change in test materials is to separate the effect of the impairment from the actual abilities.** The test score should not reflect the person's ability to understand the directions or manipulate the materials; rather, it should be an accurate reflection of the person's strengths and weaknesses. By modifying a test, the clinician is not revealing more information, helping, or offering the correct answer.

Modifications can affect the performance speed and overall results. When administering these tests, clinicians must consider carefully when to offer extra breaks and when to discontinue their use. Furthermore, **most assessment instruments have been validated using a sample of persons with intact hearing and vision. Interpreting test results of persons with sensory impairments using these norms must be performed with paramount discretion.** Many tests do not offer empirical support for modifying norms or the effect on interpretation.

Modifications need to be planned. Before administering a test, the counselor should be knowledgeable and comfortable with the tool. It is important that the test item and design be reviewed carefully before beginning. Guidelines for reviewing and administering tests to persons with sensory impairments are available through a number of sources.[9, 55-63]

Written test instructions in their standardized form may not be applicable for persons with sensory impairments. Alternate forms of written administration include: signed instructions; explaining and, if necessary, rewording advanced vocabulary used in the directions; individualized reading of directions; large-size print; pre-recorded information; or instructions in braille or tactile modalities.

Temperature, noise, and lighting are additional factors to consider. Optimum lighting is necessary for maximizing visual capacities. Overly brightly lit rooms or glare from desk tops can be distracting rather than helpful. Materials with light-colored letters on a dark background may be more useful than standardized dark print on white pages.

The time allowed for the evaluation must remain flexible; offering shorter appointments or frequent breaks can minimize the effects of fatigue. More time may be needed to describe the task properly, modify the directions, or read each item out loud. Using adaptive technology may provide access to the assessment; however, many people do not have experience with such equipment. Therefore, **sufficient time must be provided to introduce clients to new equipment and allow them to adjust to it.**

Summary

Assessment is a critical component in rehabilitation for clients with sensory and neuropsychological impairments. The Halstead-Reitan, Luria-Nebraska, and McCarron-Dial batteries have been shown to be accurate in indicating the presence of brain damage. Scores derived from the performance on these batteries can be associated with the degree of impairment. **Test data from these batteries can be used for developing and measuring progress in rehabilitation programs.** However, due to the dependence of vision for several of the subtests of each of these batteries, they are inadequate for use with persons who have visual impairments and brain damage. **The Comprehensive Vocational Evaluation System may be a useful tool for assessing persons with visual impairments. Similar instruments for assessing persons with hearing impairments have not yet been developed; therefore, the experienced conselor must use modifications and derived observations to supplement historical information.**

Currently, there are no norms or validity studies to guide the use of modified or adapted neuropsychological batteries with persons who have sensory impairments. Interpretation of test data must be carefully considered. Along with the need for specifically developed test instruments and/or adaptations, it is critical that more professionals in the rehabilitation field receive specialized training to work closely with persons with sensory impairments. Adequate testing techniques that measure the combined effects of sensory impairment and neurological damage on intellectual, work, and independent living capacities are needed.

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QUESTIONS BASED ON THIS LESSON

29. The Halstead-Reitan Battery:

A. Is designed to measure a comprehensive set of neuropsychological functions and consists of four areas of tests

B. Is a trilevel model of brain functioning that hypothesizes how information is processed and integrated

C. Is a flexible battery of 269 items grouped into 11 ability scales

D. Describes the impact of disability on personal, social, and vocational outcomes

30. Which of the following is not an imaging technique used in the diagnosis of brain damage?

A. CT

B. MDS

C. MRI

D. PET

31. Which of the following accurately defines sensorineural hearing loss?

A. The decrease of sound sensitivity produced by abnormalities of the outer ear

B. The decrease of sound sensitivity produced by abnormalities of the middle ear

C. The decrease of sound sensitivity produced by abnormalities of the inner ear

D. The sum of the hearing losses produced by abnormalities in both the middle ear and the nerve pathways to the brain

32. A Snellen figure of 20/15 would mean:

A. At 15 feet from the chart, the person with a visual impairment can read clearly what the average person can read at 20 feet.

B. The person with a visual impairment can read lines 15 to 20 on the chart

C. 15 out of 20 times, the person with a visual impairment cannot read the top line of the chart.

D. At 20 feet from the chart, the person with a visual impairment can read clearly what the average person can read at 15 feet.

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Chronic Disease: Characteristics and Psychosocial Interventions

Sharon E. Robinson, PhD

Dr. Robinson is a Professor of Counseling Psychology, College of Education, Division of Psychology in Education, Arizona State University, Tempe, AZ.

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EDITOR'S NOTE

Chronic diseases are now the main contributors to disability and death, and counseling for patients who are at risk or are suffering from such diseases is becoming increasingly more important. One out of every three people will develop some form of cancer during his or her lifetime, and each of us can expect to suffer from some chronic disease during our lifetime. The author outlines the risk factors and effects of the most prevalent chronic diseases (coronary heart disease, stroke, and various types of cancer), which account for 40% of all deaths.

A primary cause of coronary heart disease is a type A behavior syndrome, characterized by aggressive behavior that compels a person to overachieve and compete against other persons and forces (such as time). Other factors such as depression, anger, hostility, resentment, and distrust of others also play important roles and appear to be serious risk factors for the development of cardiovascular disease. Effective type A counseling intervention strategies include identification of type A behaviors, awareness of personal responses to stress, cognitive relabeling, relaxation training, and behavioral rehearsal with feedback. Because research has shown a strong relationship between self-efficacy and health behavior change and maintenance, counselors can work with clients to develop a sense of control, realistic optimism, and self-esteem. Anger-management strategies, stress-reduction interventions and effective coping strategies also may be appropriate.

The emphasis on realistic optimism and self-esteem enhancement hold true when working with cancer patients as well. The author reviews psychosocial interventions, pain- and stress-control techniques, major coping strategies, and the efficacy of support groups. Often, the use of family as well as individual counseling benefits the patient and dramatically influences his or her ability to cope.

Introduction

It is generally accepted that most people want to live long lives, as long as they are in satisfactory health. Americans spend more than $500 million annually on health care, more than 11% of their total income.[1] When illness strikes, a variety of factors—genetic, biological, and psychosocial—needs to be considered for effective intervention. In addition, lifestyle issues have been found to contribute to illness onset and progression.[2] The Centers for Disease Control[3] stated that half of deaths due to the 10 leading causes of death in this country are caused by modifiable lifestyle factors.

Prevalence of Chronic Diseases

According to Taylor,[1] prior to the 20th century, the major causes of illness and death in America were acute disorders, such as tuberculosis, pneumonia, and other infectious diseases. These disorders usually resulted from bacteria or virus and were curable. "Now, however, chronic illnesses—especially heart disease, cancer, and diabetes—are the main contributors to disability and death. Chronic illnesses are typically diseases that cannot be cured, rather only managed by patient and practitioner together."[1] Currently, the death rate associated with infectious diseases is only 6%, whereas the rate due to chronic illnesses has risen to 70%.[4]

The expected life span for Americans has steadily increased to the point where most women can expect to live to age 75 and men to age 67.[1] In spite of this increased longevity, **approximately half of Americans suffer from a chronic disease**. It is estimated that 37 million Americans are afflicted with some form of arthritis,[5] with three of four sufferers of rheumatoid arthritis being women.[6] Five million Americans have had cancer, the leading cause of death among women in the United States,[7] and one of three people will develop some form of cancer during his or her lifetime.[8] Seven million Americans have had a stroke, heart attack, or chest pain, and as many as 60 million have high blood pressure.[9] Almost 29 million Americans suffer from hypertension,[10] and 11 million are afflicted with diabetes,[11] a disease known to shorten one's life span and affect quality of life.

What may be most startling is that each of us can expect to suffer from some chronic disease during our lifetime.[1] **Two of the most prevalent chronic illnesses are coronary heart disease and cancer**. To work effectively with patients who have a chronic illness, **it is imperative that the counselor understand the disease to implement effective and appropriate psychosocial interventions.**

Coronary Heart Disease

Cardiovascular disease is the leading killer in America, accounting for 40% of all deaths. Taylor[1] described coronary heart disease as **illnesses caused by the narrowing of the arteries that supply the heart with blood, oxygen, and nourishment**. This shortage of oxygen and nourishment results in pain, called angina pectoris, which spreads across the chest and arms. **When the artery is narrowed severely, a heart attack (myocardial infarction) can result**. Approximately 1.5 million Americans have heart attacks each year. Of these patients, 25% will die within a few hours of the heart attack, and a third will die within a few weeks. Fewer than half will recover and will need help in modifying their lives to decrease the chances of having another heart attack.

Risk factors for coronary heart disease **include high blood pressure, diabetes, cigarette smoking, obesity, high serum cholesterol levels, and low levels of physical activity.**[9] Snyder[12] linked physiologic risk factors with behavioral causes (Table 1); **each of the behavioral causes is modifiable**. Snyder[12] cited data from studies that confirm the importance of changing smoking behaviors: at the end of a 5-year period, there were 17% and 10% reductions in heart attacks among men and women, respectively, who had stopped smoking. The incidence of strokes also was reduced, 13% in men and 35% in women.[12]

Strokes are the third leading cause of death in the United States and account for 10% of all deaths.[1] A stroke **results from a disturbance of blood flow to the brain**, often leaving its victims with some degree of permanent physical or cognitive impairment. **If the right side of the brain is damaged during the stroke, visual problems may result**. For example, the patient may not be able to see both sides of his or her face in the mirror or may see only half of a room. **If the left side of the brain is damaged, the patient may have communication disorders,** such as difficulty expressing thoughts and understanding others, and may experience a reduction in intellect and ability to learn new tasks. A stroke **affects every aspect of a person's life**—personal, social, vocational, and physical.[13] It is no surprise that patients who suffer a stroke are **prone to depression** and require the psychosocial interventions offered by knowledgeable counselors.

One cannot overlook **type A behavior patterns as a cause of coronary heart disease**. The type A behavior syndrome originally was formulated by Friedman and Rosenman[14] as a "behavioral and emotional style marked by an aggressive, unceasing struggle to achieve more and more in less time, often in competition with other individuals or forces." In particular, the type A syndrome was characterized by three components: **easily aroused hostility, a sense of time urgency, and competitive achievement strivings.**[1] **Easily aroused hostility has emerged as the most damaging component with respect to physical health.**

Siegel[15] noted that **depression and anger-hostility are central to the pathogenic process of cardiovascular disease** and that research has shown "anger-in" is related to the disease independent of type A behavior. **Anger-in is defined as anger that is harbored, hidden, and held on to by the patient.** Closely related to anger-in and equally as damaging to health is cynical hostility, characterized by suspiciousness, resentment, frequent anger, antagonism, and distrust of others.[16] Dysfunctional anger or hostility appears to be a serious behavioral risk for the development of cardiovascular disease, even among persons with type B behaviors.[17]

Counselors must help clients who are at risk of developing or who have coronary heart disease to deal with their anger and hostility. A comprehensive study[18] consisted of 862 patients who had suffered a heart attack within the past 6 months, had not smoked for at least 6 months, and did not have diabetes. After a 3-year period, 13% of those who participated in **cardiac counseling (information about causes of heart attacks; medical management of heart disease; activities to avoid; and modification of weight, blood pressure, smoking, and exercise)** had a second heart attack. Only 7.2% of those who received cardiac counseling plus type A counseling suffered another heart attack. **The type A counseling intervention included identification of type A behaviors, awareness of personal responses to stress, relaxation training, cognitive relabeling, and behavioral rehearsal with feedback**. This

Table 1
Risk Factors and Behavioral Causes of Coronary Heart Disease

Physiologic Factors	*Behavioral Causes*
Overweight	Excessive eating/drinking Lack of adequate exercise
Elevated cholesterol level	High consumption of fats and saturated fats
Elevated blood pressure	High consumption of salt Lack of adequate exercise Excessive eating/drinking
Acceleration of atherosclerosis	Smoking Type A behavior

study suggests that type A behavior is modifiable and can lead to a reduction in physiologic arousal associated with atherosclerosis and in the recurrence of heart attacks.

Carroll's review[19] of the literature refined this connection. **He noted that modifying type A behavior might be most appropriate for patients with middle-class occupations and lifestyles**. His conclusion is based on the types of stressors resulting from these professional and social positions, which are different from those of lower-income patients. This reinforces the need to be aware of person-disease issues and of not applying one solution to all patients.

In addition to this type of intervention, research increasingly indicates that enhancing a patient's "sense of control and self-efficacy may reduce emotional distress and consequently enhance psychophysiologic recovery."[1] Undertaking numerous health behaviors requires that the patient have a sense of personal control and a belief that he or she can influence the course of the illness. According to Taylor,[1] research has shown a strong relationship between self-efficacy and health behavior change and maintenance. **Counselors can employ cognitive-behavioral management techniques when working with patients with coronary heart disease to increase their sense of control over behaviors that increase the risk of further heart attacks and their beliefs that they can maintain more healthy behaviors.**

By working with a patient's health **self-efficacy**, the counselor is helping to **change cognitions so that the patient becomes more optimistic about disease progress**. Studies of coronary artery bypass patients[20] have shown that patients who were optimistic regarding the outcome of surgery reported less emotional distress, fewer symptoms, and sought more medical information from physicians than patients who were pessimistic. They also were less likely to try to suppress thoughts about their physical symptoms. After surgery, they were quicker than pessimistic patients to progress in recovery, as measured by behavioral indices and medical staff reports. "Optimism was associated with greater normalization of life activities...and faster normalization."[20]

By providing psychosocial interventions that increase a patient's sense of control and self-efficacy and decrease stress and anger, while enacting more health-enhancing behaviors (e.g., appropriate diet and exercise), the counselor fosters lifestyle changes in the patient. These changes **enhance physiologic recovery and counteract the sick role that occasionally occurs after a heart attack.** Helping the family to be supportive and encouraging the patient to resume normal activities as quickly as possible also foster a more rapid recovery. **Families and loved ones of a patient with heart disease must be taught how to be helpful without assuming responsibility for the patient;** i.e., how to avoid treating the patient in ways that keep him or her in a sick role that inhibits recovery.

There are many psychosocial interventions appropriate for patients with heart disease. Research has shown that frequent anger and hostility can be damaging and increase the risk of developing heart disease; therefore, **anger-management strategies and stress-reduction interventions may be appropriate**. In addition, patients with heart disease often benefit from therapy that helps them with attitude adjustment so that they do less catastrophizing, learn more adaptive cognitions for coping with their disease, and begin effective coping through problem solving and an optimistic attitude about their illness. **A sense of optimism is particularly important.** Besides individual therapy, group therapy (such as that in the study by Friedman and coworkers[18]) has been found to be successful in changing at-risk behaviors and reducing the recurrence of heart attacks. The role of the family in recovery and renormalization is paramount and should not be ignored by counselors working with patients with coronary heart disease.

Cancer

There are more than **100 types of cancer**, which is the leading cause of death among women and the second leading cause of death among men. **All cancers result from a dysfunction in DNA**, the part of cellular programming that controls cell growth and reproduction.[1] Although the causes of cancer are poorly understood, several risk factors have been identified. **The most prevalent risk factors are smoking, alcohol consumption, and a fatty diet.** Many cancers run in families or are ethnically linked. For example, white women are more susceptible than black women to breast cancer. Married persons develop fewer cancers, with the exception of sexually related cancers, than single persons.

Over the years, researchers have investigated **the type C, or cancer-prone, personality**. Temoshok[21] characterized the cancer-prone personality as **responding to stress with depression and hopelessness, denying or muting negative emotions, and having a propensity for learned helplessness.** Derogatis and associates[22] and Levy and colleagues[23] reported a rapid course of illness resulting in early death in polite, unaggressive, acquiescent patients, whereas a long course of illness and/or better immune functioning was associated with a more combative, angry stance toward illness and medical practitioners. Although concrete conclusions regarding a cancer-prone personality are not possible, there is extensive research indicating that "individuals who cope with stress by being acquiescent and pleasant and by repressing negative emotions *may* be more likely to develop malignancies. Malignancies *may* be more likely to develop or may develop more rapidly in individuals who feel helpless, hopeless, depressed, or out of control. Cancer has been tentatively tied more specifically to problems of social support and to stressful life events."[1]

Certain cancers, such as gynecologic and breast cancer, are unique to women. **Vaginal cancer is rare and typically diagnosed in older women.**[24] One of the most curable cancers is endometrial cancer, if it is diagnosed early. Ovarian cancer can be fatal due to its insidious onset and silent growth pattern. Research recently has shown that delayed childbearing is related to ovarian cancer.[25] Fallopian tube cancer is difficult to detect until it reaches the latter stages of development, when it also may be fatal.

The mortality rate due to cervical cancer has declined steadily, mainly due to women undergoing regular Pap smears. **Risk factors for cervical cancer include several sexual partners, giving birth to numerous children, poor medical care postpartum, unhappiness and depression, marital disruption, and inadequate hygienic self care.**[26]

According to statistics published by the National Institutes of Health,[27] **1 in every 10 women will be diagnosed with breast cancer;** approximately 42,000 women die each year of the disease. **Risk factors include being over 50 years of age, having a family history of breast cancer, bearing the first child after age 30, not giving birth, and beginning menstruation prior to age 12 or entering menopause after age 50.** The 5-year survival rate for women with breast cancer detected early, typically through breast self-examinations or mammograms, is 78%–90%.[25] More than 90% of women who have breast cancer detect it through regular self-examinations.

Every woman diagnosed with breast cancer must face the decision of how to best fight the disease. For women who have early-stage breast disease, an estimated 36%–47% undergo lumpectomy rather than partial or radical mastectomies. Rowland[28] reported that these data depend on the woman's age and whether the state in which she is treated mandates that she be given information about this option.[29,30] Approximately 500,000 women who have had a mastectomy also have undergone breast reconstructive surgery "to restore a personal versus body image."[28] The number of women choosing this procedure

is increasing dramatically—with a 114% increase from 1981 to 1990.[31]

Perhaps the increase in breast reconstructive surgery is partially due to women feeling a lost sense of femininity and believing that their partners will no longer find them attractive after one or both breasts are removed. The issue of who they are becomes a central concern as they struggle to redefine themselves sexually.[2] Almost all breast cancer patients develop sexual problems, which, if untreated, are likely to remain unsolved and negatively affect the patient and her sexual partner.[32]

Like patients with coronary heart disease, patients with cancer who are less optimistic and engage in more cognitive avoidance regarding their disease are likely to experience more distress both prior to the biopsy and after the diagnosis of cancer.[33] Therefore, it is important to work with the cognitions of the patients with cancer and to foster not only self-esteem but realistic optimism and a sense of control. As Winograd[34] pointed out, patients with cancer must take control of what is happening to them; they need to become a partner in their treatment. **By becoming actively engaged in fighting the disease, they give up feeling hopeless and enacting the helpless role and gain a sense of self-efficacy and self-control**--important weapons for the fight against chronic illness.

In addition to these psychosocial interventions, patients with cancer can benefit from learning pain- and stress-control techniques, such as **relaxation training, self-hypnosis, guided imagery, biofeedback, systematic desensitization, and cognitive-behavioral management**. These interventions can be particularly useful when combating the side effects of chemotherapy and for pain management. Teaching patients to think adaptive thoughts helps them to minimize discomfort and pain. For example, patients can tell themselves during chemotherapy: "I can't avoid this, but I can manage it. Relax, breathe deeply and slowly. Distract myself, think of..." and, "I knew this would happen, I can deal with it." Self-statements such as these help the patient with cancer cope with the disease and the needed medical treatments.

In a study of more than 600 patients with cancer, Dunkel-Schetter and colleagues[35] identified five major coping strategies: distancing (used by 26%), seeking or using social support (21%), focusing on the positive (21%), using cognitive escape-avoidance (20%), and using behavioral escape-avoidance (11%). **It appears that patients with cancer use a large repertoire of coping behaviors regardless of the type of cancer, time since diagnosis, and whether one is in treatment.** The patient's ability to cope can make the difference between "optimum recovery" and "psychological invalidism."[36]

Dunkel-Schetter and colleagues[35] found that being in a support group made a difference in coping and illness management. Patients in support groups used more coping strategies (except for distancing) than did patients who had never attended a support group. Similarly, **patients in support groups, like those who had had individual therapy, were more likely to be optimistic.**

Optimism has been found to be a vital quality among patients with breast cancer.[20] "Optimism was associated with a pattern of reported coping tactics that revolved around accepting the reality of the situation, placing as positive a light on the situation as possible, trying to relieve the situation with humor, and taking active steps to do whatever there was to be done."[20] In contrast, **patients with breast cancer who were pessimistic demonstrated a pattern of conscious denial and giving up, both of which are dysfunctional behaviors for patients with a chronic illness such as cancer.**

A diagnosis of cancer creates numerous problems, including physical disability, family and marital discord, sexual difficulties, self-esteem deterioration, social and recreational disruptions, and emotional distress. Counselors need to intervene on many levels to

help cancer patients and their families cope with this threatening illness.

Psychosocial interventions often must include family as well as individual counseling. A diagnosis of cancer affects all members of a family, and a family's response to the patient will dramatically influence his or her ability to cope.[37] By facilitating open, honest, and frank discussions among family members, **family therapy allows for the safe ventilation of feelings, provides support for family members trying to cope with a diagnosis of cancer and the resulting changes, and facilitates the recognition of the family's role in the patient's recovery process.** Family counseling benefits the chronically ill patient and the members of his or her family.

As demonstrated by Dunkel-Schetter and coworkers,[38] patients with cancer also may benefit from being part of a group, whether it be a therapy group or a self-help support group. The group offers patients the opportunity to receive support from others who have the same life-threatening illness and who understand what others are experiencing.

Wenzel and associates[38] have shown that patients with gynecologic cancer may report more immediate distress and mood disturbance as a result of a structured group experience. However, their return to normal is more rapid, they feel less helpless and hopeless, and they experience less mood disturbances. Dealing with issues such as **loneliness, dysphoria, social alienation, self-image, morale, sexual intimacy, and fear of dying** with other patients with cancer is stressful; but facing these issues allows the patient to put them into perspective and to proceed with healing and living.

Summary

Although many of the psychosocial concerns of patients with coronary heart disease, cancer, or other chronic illnesses are not different from patients who are not chronically ill, there are some distinct differences. Chronically ill patients are attempting to cope with a drastic life-altering and possibly life-threatening illness that affects them and their families on a daily basis. To be of most help to these patients, counselors must be knowledgeable about the illness from which the patients are suffering. In addition, counselors need to know about interventions that have been shown to be effective in this patient population.

When working with patients with chronic disease, it is imperative that the counselor be part of an interdisciplinary team that focuses on treating both the medical and psychosocial concerns of the patient. **It is not enough to just control the disease's progress; we must be concerned with the patient's quality of life. This entails helping the patient examine and modify his or her lifestyle, thoughts, and interpersonal networks to ensure the best medical and psychosocial prognosis possible.**

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QUESTIONS BASED ON THIS LESSON

33. The type A counseling intervention strategies include all of the following except:

    A. Cognitive relabeling

    B. Relaxation strategies

    C. Behavioral rehearsal with feedback

    D. Cognitive avoidance

34. Which of the following is not used as a pain- and stress-control technique for patients with cancer?

    A. Distancing

    B. Biofeedback

    C. Systematic desensitization

    D. Guided imagery

35. Psychosocial interventions that include family therapy:

    A. Encourage dependence on family members

    B. Is recommended only for patients experiencing mood disturbances

    C. Benefits the patient but has relatively little effect on family members

    D. Facilitates the recognition of the family's role in the patient's recovery

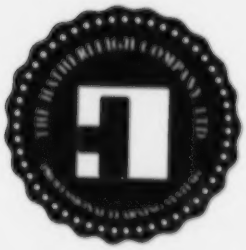
36. Which of the following statements is not true?

    A. Depression is central to the pathogenesis of cardiovascular disease.

    B. Research has shown "anger-in" is related to the disease independent of type A behavior.

    C. Among type B personalitites, cynical hostility and dysfunctional anger were not serious behavioral risks for the development of cardiovascular disease.

    D. Easily aroused hostility has emerged as the most damaging component with respect to physical health.



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VOLUME 5 • LESSON 10

Counseling Long-Term Survivors of HIV/AIDS

Robert H. Remien, PhD, and Glenn J. Wagner, MA

Dr. Remien, a clinical psychologist, is Research Scientist, and Mr. Wagner is Assistant Research Scientist, the HIV Center for Clinical & Behavioral Studies, New York State Psychiatric Institute, Columbia University College of Physicians and Surgeons, New York, NY.

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EDITOR'S NOTE

It has been over a decade since the first clinical cases of what we now know as AIDS were identified. At the outset, the alarming exponential growth in AIDS-related deaths and the fact that a vaccine was not available (nor would be in the near future) received the greatest amount of attention. At-risk segments of the population began to be identified accurately; accordingly, attention began to focus on various preventative measures to thwart the spread of AIDS and its potential precursor, the human immunodeficiency virus (HIV). As research efforts intensified, the medical and lay media reported findings on possible causes of HIV/AIDS and the course of illness, as well as advances in drug therapies (e.g., AZT, which can slow the rate of virus reproduction, and antiviral agents such as Zovirax, Dapsone, Bactrim, and Cytovere, which combat the opportunistic infections related to HIV). As we all know, although much progress has been made, a "cure" remains elusive...and the attention of the health care community has started to focus on the most recent phenomenon of the AIDS epidemic: the long-term survivor.

Similar to other AIDS-related phenomena, the long-term survivor presents several mysteries to the health care community. To begin with, the definition of a long-term survivor is not concrete. Although in 1990 the Centers for Disease Control identified a long-term survivor as any person living for more than 3 years after a diagnosis of an AIDS-related opportunistic infection, this definition is still being debated. Furthermore, it is uncertain why some patients are long-term survivors and others are not. As Dr. Remien and Mr. Wagner note in this lesson, the reason for the extreme variability in the course of this illness is still unknown.

One thing is certain: the role of the rehabilitation community in working with long-term survivors of HIV/AIDS will become increasingly important as the numbers of long-term survivors continue to swell. In this lesson, the authors explain the various psychological challenges faced by long-term survivors; e.g., dealing with future uncertainty, experiencing multiple loss, maintaining romantic relationships, and managing the progression of symptoms and illness. In helping patients negotiate these challenges, counselors must know how to validate emotional reactions, facilitate feelings of empowerment, assess psychiatric risk, promote adaptive coping, ensure flexibility in counseling strategies, and talk about death and dying appropriately and productively. Of course, these are but a few of the therapeutic tasks of counselors working with long-term survivors; others are discussed in this lesson.

"We are living with AIDS, not dying from AIDS" was the defiant challenge of early long-term survivors of acquired immunodeficiency syndrome (AIDS). Many viewed this as an unrealistic challenge rather than a denial of the apparent "downhill course" leading to the ultimate death of infected persons. The fact is that an increasing number of people are "living with" the human immunodeficiency virus (HIV) and AIDS—people whose future remains increasingly uncertain given the diversity of the course of the illness and the extended survival expectancy.

Who Is a Long-Term Survivor?

The term "long-term survivor" has been used to describe different populations. As of 1990, the Centers for Disease Control (CDC) had defined **a long-term survivor as any person living for more than 3 years following a diagnosis of an AIDS-defining opportunistic infection.** (This did not include Kaposi's Sarcoma.) At the time, this was twice the median survival period (18 months) for gay men with AIDS. **Data indicate that the 3-year survival rate for patients diagnosed in the late 1980s ranges from 15% to 20%.**[1]

It is less clear how to define long-term survival for persons infected with HIV but without significant illness. The prevalence of such cases is unknown, because many who have been infected for a long period may be unaware of their serostatus and many who know they are HIV-positive typically do not know when they were infected.

There are patients whose seroconversion can be dated as far back as 1977, when hepatitis B vaccine trials with gay men were conducted in San Francisco, New York, and Amsterdam.[2] In these studies, stored blood sera allowed testing for HIV antibodies after the test was available in 1985, providing a window into subgroups of long-term survivors. **Some patients' immune systems have remained relatively intact for more than 10 years** (now called "**long-term nonprogressors**"), whereas **others have remained clinically healthy although their CD4 cell count has declined significantly**. Within this latter group, there are some patients whose CD4 cell count has declined and then subsequently risen to a normal or near-normal level.

No one really knows why some patients are long-term survivors of HIV and others are not. Researchers are struggling to find clues to the extreme variability in the course of illness. One possible factor in survival is the virulence of the strain of the virus, although HIV may have the ability to evolve into more virulent forms after infection. Researchers also have suggested that differences in a patient's **immune function**,[3-5] **genetics**,[6-8] and **psychosocial or behavioral factors**[9-11] **may influence the length of survival of those with HIV**. Other potential factors include various **host characteristics** (e.g., age, gender, and ethnicity), **mode of infection, co-infections, and access to health care and medications**.

When a group of long-term survivors of AIDS was asked why they have lived longer than expected, their responses (in descending order of frequency) included the following: a positive attitude or will to live, history of a healthy lifestyle, good medical care, personal action regarding health care, personal resources (e.g., inner strength and a sense of humor), remaining active, social supports, luck, biology (e.g., genetic factors and viral virulence), and God's will.[12]

Psychological Challenges

DEALING WITH FUTURE UNCERTAINTY:

Whatever the reasons for survival, **coping with the uncertainty of future health may be the most difficult psychological challenge to long-term AIDS survivors**. Because of the varying, yet often bleak, estimates of survival, it is difficult for infected or actually ill patients to know how to plan and live their lives. In the context of the variable course of the illness, some common questions for an HIV-infected person are: How long will it take for me to become sick? What can I do behaviorally, or what treatment can I take, that will influence how long I live? What reasonable expectations can I have about the quality

of my life? Should I even think about changing jobs? What will happen to my health/disability insurance? What about returning to school? Who will be around to care for my kids if I get sick and die? Time, both in quantity and quality, becomes a precious commodity and a powerful variable when discussing HIV infection.

REFRAMING A PERSPECTIVE ON LIFE:

Adult development, as described by Erikson,[13] suggests that: people continue to develop beyond childhood; there are discrete stages of adult development; and crises occur that propel people from one stage to the next. Jung[14] described the second half of life as presenting an entirely new direction and new challenges in interpersonal relationships and the relationship to one's own inner life. What happens to patients when they encounter HIV infection in the middle of this developmental process, at approximately age 30 or 40—or even younger? Suddenly, the horizon shrinks. In their minds, if not in truth, the end point of life moves closer. **There is often a push to accelerate adult development, and maturation may occur more quickly**.

The prospects of a shortened life often raise existential questions such as, "What is the purpose of my life, and how do I derive meaning from the life that I have left?" Thoughts may turn to **spiritual issues** such as the process of death and dying and an afterlife. Some patients begin to question assumptions about many aspects of their lives and the **establishment of new priorities and goals**. Issues that seemed important before may now seem trivial and minor. **Adjusting to a seropositive status and extended survival is a process of integrating new information into an existing identity**.

For some patients, the notification that they are seropositive leads them to make decisions based on the belief that their life will soon be over. Consequently, **the reality of unanticipated survival may present a period of difficult readjustment**. Accelerated maturation and a shift in perspective may be stymied by anger, rage, and resentment. The process of redefinition and change may evoke feelings of grief, loss, and rage. Some patients may feel overwhelmed, and depression and suicidal ideation may occur. **To carry on, patients may need to find new meaning in their lives**. Sources of pleasure and satisfaction are reexamined, and **goals become focused on obtaining the most out of the present**.

This period of adjustment may lead to the formation of a new identity and a new sense of self-worth. Transformations in self-identity are common; for instance, a non-political person may become an activist, a drug abuser may become a person in recovery, or an athlete may become a patient living with chronic physical symptoms. Normally, patients pass through all the stages of grief as they mourn the loss of the selves they used to be, whether they see the transformation as growth or disability.

EXPERIENCING MULTIPLE LOSS:

A hallmark characteristic of long-term survivors of AIDS is the experience of multiple loss. For some patients, entire social networks are lost. In certain HIV-affected communities, helping to care for sick friends and neighbors and attending memorial services have become "normal" parts of life. **Martin[15] found a significant association between the number of losses from AIDS** (friends and lovers) **and the level of demoralization for gay men**. In a similar demographic sample, Neugebauer and colleagues[16] found that the overall level of depressive symptoms, the presence of specific symptom clusters, and the presence of a diagnosed depressive disorder were not related to the number of losses from AIDS. These authors speculated that changes in normative expectations regarding deaths from AIDS and mobilization against AIDS within the gay community may account for these findings.

Even if an increased number of losses does not necessarily lead to clinical distress, the experience of multiple loss presents a challenge to the long-term survivor. **The longer one lives with this disease, the greater the likelihood of the experience of loss**. This is expressed quite eloquently by a long-term survivor of AIDS: "One of the most difficult things is watching your friends

die. All of a sudden, your support systems are not there anymore. It's along the way that the people you love, the people who are friends, the people you lean on, all of a sudden they are not there anymore. There is a sense of constant loss. And the longer you live with this thing, the more losses there are. There never seems to be a reward for being a long-term survivor. It's just long grief."

REBUILDING SUPPORT NETWORKS:

Social supports play a major role for people living with HIV/AIDS in spite of, or perhaps due to, the numerous losses. Research has shown that social supports are positively associated with hope and overall psychological functioning, and they are negatively associated with depressive symptoms in patients with HIV/AIDS.[17,18] **It is important for infected patients to have at least one confidant to whom they can turn and share their fears and concerns**. The best support is someone close, trustworthy, and nonjudgmental with whom the patient can talk about anything. This may be a close friend, family member, lover, or, perhaps, the counselor.

When dealing with chronic illness and the loss of functioning, **patients with AIDS have an increased need for the support of others. This often meets with resistance because it is accompanied by a loss of independence and an increased reliance on others**. However, once this resistance is surmounted, there are practical as well as psychological benefits to having good social supports.

MAINTAINING ROMANTIC RELATIONSHIPS:

Loneliness is a problem for some patients with HIV and AIDS, particularly when it comes to romantic relationships. Typically, when patients are first diagnosed with HIV or AIDS, there is a significant decline in sexual interest and activity. How long this period will last varies and depends, to a large degree, on their health status. As time passes, they usually will want to resume romantic relationships if such relationships have been missing from their lives.

The process of resuming sexual activity and romantic relationships can be difficult because many patients feel inhibited by concerns such as fear of rejection from potential partners, fear of infecting others, anxiety over disclosing their serostatus, and difficulties negotiating safe sex. Some patients are reluctant to enter into a relationship with HIV-negative partners out of fear of infecting them or of not being able to relate. There are also concerns about forming a relationship with another person who is HIV-positive, such as the fear of having to take care of their partner when he or she is sick and seeing their own fate played out before them. Although these fears are anxiety producing and contribute to feelings of loneliness and despair, they can be overcome; **sexuality can, in fact, remain a vital part of their lives**.

DOCTOR-PATIENT RELATIONSHIP:

It is important for patients to develop a relationship with the medical care system with which they feel comfortable and trust; they should be active partners in the management of their disease. Patients should choose a provider who is not only familiar with HIV infection and all of its associated manifestations and treatment approaches, but who is also willing to engage in a dialogue about different strategies of care and quality-of-life issues, and is willing to be with them long-term. In research on long-term survivors of AIDS, the doctor-patient "partnership" has emerged as a factor believed to be associated with health and survival.[11]

Both patients and doctors should be alert to any changes in health, medication side effects, and early signs and symptoms of secondary illnesses so that problems can be treated quickly before unnecessary complications occur. Counselors should encourage clients to be open and honest with their doctor, and help them confront their resistance and fears about taking medication. Aggressive medical treatment is important for healthy survival and quality of life. Timely use of prophylactic agents against opportunistic infections is also crucial.

LEARNING ABOUT TREATMENT OPTIONS:

With HIV infection, **it is important for patients to be well informed regarding the expected course of the disease, treatment options, and symptoms of opportunistic infections**. This is a highly challenging task because HIV is still a relatively new disease; there is no "cure," no established effective treatments, and no agreed-upon standards in the management of HIV infection. Judgment and personal philosophy on the parts of both patients and health care providers play larger roles than usual in medical care.

Approaches to treatment vary considerably with both doctors and patients. There is general agreement on some primary prophylactic treatments (e.g., trimethoprim and sulfamethoxazole [Bactrim] or Dapsone for Pneumocystic carinii pneumonia), some secondary prophylactic treatments (e.g., acyclovir [Zovirax] for recurrent herpes), and some treatments of acute opportunistic infections (e.g., garciclovir [Cytovere] for cytomegalovirus retinitis, esophagitis, or colitis). However, when it comes to antiviral drugs or experimental and holistic treatments, there are wide differences of opinion. This makes it particularly difficult for patients to know what choices to make. Furthermore, patients have the added psychological burden of deciding to take an antiviral drug when they do not have any symptoms of illness.

HANDLING THE PROGRESSION OF SYMPTOMS AND ILLNESS:

For patients who were previously asymptomatic, the emergence of symptoms can be terrifying because they symbolize the progression of illness or the "beginning of the end." Panic reactions may be common. The onset of symptoms can represent failure for patients who have been particularly dedicated to self-empowerment and personal health regimens. This can lead to feelings of depression, self-reproach, and guilt. On the other hand, some patients minimize the significance of new symptoms and avoid treatment, whereas others completely deny the presence of symptoms.

Continuing to maintain hope in the context of illness progression and often grim news regarding the chance for a "cure" is indeed a great psychological challenge. This becomes an even tougher challenge in the context of multiple illnesses and chronic health impairment. **Hope is extremely important throughout the progression of HIV infection, but it is especially so during hospitalization**. For many patients, hospitalization may constitute a shift from the labels of "asymptomatic" or "AIDS-related complex" to the diagnosis of AIDS. Patients must be reminded that much life remains after a diagnosis of AIDS. For some patients, it is the second bout with a truly devastating opportunistic infection. Often, there is complete physical recovery after a first illness and return to a "normal" life. Becoming sick again is a very real reminder that "it" is not over and probably will only get worse.

As HIV infection progresses, many patients report the experience of being 20–30-year-old persons in 70–80-year-old bodies. Unlike the elderly persons who are accustomed to sharing stories about changes in their bodies, patients with HIV infection in their 20s and 30s encounter few places where they can talk freely about new infections, lesions, increasing levels of fatigue, loss of libido, or hair loss. **Support groups can be extremely helpful in providing a place to have such discussions**.

Therapeutic Tasks

VALIDATING EMOTIONAL REACTIONS:

Counselors need to help clients validate the wide range of feelings that they may experience—to let them know that their feelings are expected, natural reactions. The task of therapists is to provide an empathic, supportive ear—to **be reassuring, yet realistic**. Patients may feel they are losing everything: their health, friends, vitality, and future. The mere presence of counselors is something that is familiar, constant, and supportive. Counselors should help patients express and work through painful emotions, which will facilitate coming to

terms with their illness, its meaning, and subsequent restrictions.

FOCUSING ON SHORT-TERM GOALS:

An emphasis on setting short-term goals and enhancing problem-solving skills is usually helpful in managing anxiety and helping patients achieve some feeling of control in what can otherwise be a totally uncontrollable situation. Counselors can help patients focus on the controllable aspects while acknowledging the frustration and feelings of loss over what is beyond anyone's control. **Examples of goal-directed activities include: gathering information about the disease and various treatments; making lifestyle changes that may help patients feel better (e.g., changing diet, reducing alcohol and drug use, and increasing sleep and exercise); and, perhaps most important, establishing or consolidating a trusting relationship with a friend or confidant as well as a health care provider.**

FACILITATING FEELINGS OF EMPOWERMENT:

The counselor has an important role in facilitating patients' decision-making processes to empower them as members of the medical team. **For many patients, the concept of developing relationships with medical providers and becoming active members of the medical team is a foreign one.** Although many patients are accustomed to simply accepting treatment recommendations suggested by their physician, **social support and political activism in the HIV community have encouraged many HIV-infected patients to ask more questions and express greater interest in experimental protocols than other patient groups with chronic or terminal illness. Some physicians who are unaccustomed to patient assertiveness in treatment decisions may be resistant or resentful of their patients' desire for participation. Counselors often can be helpful in assisting patients to assert themselves more effectively or to find physicians who are more willing to collaborate with them.**

Although the news of new treatments provides hope to HIV-infected patients, it is difficult to know what to do in response to the latest news. Should my present treatment regimen be abandoned in favor of a new one? How do I make sense of the contradictory results and confusing jargon? Should I trust my physician (or clinic) or switch to someone who is participating in a new treatment study? These questions often lead to ruminative anxiety, which can make it extremely difficult for HIV-infected patients to get on with their lives. Counselors can play a crucial role in helping patients sort out these emotionally charged issues.

It is also important to destigmatize feelings about treatment "failure," reframe the notion of what the word "failure" means for patients living with chronic infection, and move into a revised health action plan as soon as their energy returns. Because patients who are aggressive medical consumers have tried to maintain a sense of control over their health, a turn for the worse in their health status can cause them to experience guilt and despair. It may be necessary to remind patients that some aspects of their health are not in their control and that they can endure temporary setbacks.

OBTAINING CONCRETE SERVICES:

The work of counseling often becomes that of helping HIV-infected patients negotiate financial and attitudinal obstacles to health care while containing the anger that might alienate health care providers who are willing to serve them. Patients may require access to social service agencies for transportation, housing, financial assistance, food delivery, home health care, and help with domestic chores. In some areas, reliable case management is offered by hospital social workers or staff from community-based AIDS service organizations. In other areas, counselors may be the only ones who are available to assist patients in obtaining necessary services, filling out required forms, understanding relevant guidelines and regulations, and dealing with the exceedingly complex array of fragmented service delivery systems.

In all locations, working with HIV-infected patients requires counselors to become involved in the community, find out what is offered and where, and build working relationships with key providers at agencies that offer assistance to HIV-infected patients. **Patients with AIDS often need support, guidance, and concrete information from counselors when making decisions about ceasing to work, obtaining social security benefits, and arranging for psychosocial support services.** These decisions are emotionally charged and have rippling effects related to their sense of empowerment, independence, control, and value.

ASSESSING PSYCHIATRIC RISK:

Early reports indicated high degrees of psychopathology in gay men infected with HIV.[19-22] Other reports showed the rates of psychiatric distress and depressed mood to be no different from those of HIV-negative controls[23,24] or community samples matched by gender and age.[25] In fact, **a comprehensive review of published research on the prevalence of psychiatric disorders among patients with HIV infection indicated neither a consistent pattern of diagnosis nor a typical diagnosis in this population.**[26]

There is a paucity of data on psychopathology, including the risk of suicide in long-term survivors of AIDS. In a study of this population,[11] **low aggregate rates of syndromal mood disorders and psychiatric distress were exhibited despite multiple illnesses, stressors and losses, and a wide range of physical impairment.**

Although clinical depression is *not* the norm for patients with HIV, treatments for depression are available, including the use of psychopharmacology, even in patients with severe immune suppression.[27] Because some symptoms of depression (such as lethargy, sleep, and appetite disturbances) are also common in patients with HIV infection, it may be important to refer patients to someone with diagnostic expertise in this area for an evaluation.

DETERMINING SUICIDAL IDEATION:

Although there have been some reports of elevated risk for suicidal ideation, suicide attempts, and suicide in patients with AIDS,[28-30] the actual number of suicides in this population appears to be quite low.[31] Factors such as social support, meaningful work, and religious beliefs may diminish the chance of suicide. In their study of long-term survivors of AIDS, Rabkin and associates[11] reported that no suicide attempts were made by men who had no previous history of such attempts; although several patients considered it a future option should their condition become intolerable, none reported current suicidal ideation.

Counselors must assess suicidality and respond to it as they would with other patients. However, **it is important to distinguish acute suicidality from a plan to commit suicide if certain medical developments (such as blindness, paralysis, disfigurement, or chronic pain) occur**; the former is rare, whereas the latter is quite common. **Often, if these physical problems come to pass, patients manage to cope with the situation, discover new strengths, and renegotiate the circumstances in which they would end their lives.**

Patients need to know that thoughts about choosing the time of their own death are a legitimate topic of discussion in therapy. **Counselors must recognize that the serious consideration of suicide often provides patients with a sense of control that leads to a reduction in distress, a calming return to emotional equilibrium, and the energy and motivation to engage in life again—at least for the time being.**

PROMOTING ADAPTIVE COPING:

Several studies have found that avoidant coping is related to an increase in psychological distress,[32-37] whereas active behavioral coping is associated with a decrease in psychological distress in the context of HIV infection.[34,38] **Reed and colleagues" have found an association between a fatalistic attitude and decreased survival time with persons with AIDS.**

Some use of denial as a coping strategy can be beneficial to patients with HIV infection. Because the course of the illness is unpredictable, it is important for the patients to realize that a long-term future may indeed be possible; also possible is an extended survival, with the cause of death being some unrelated illness much later in life. Some would call this denial; others call it maintaining hope. **Denial becomes detrimental, however, when it prevents a patient from attending to real symptoms and events that require medical attention**. Counselors can address this issue in a supportive manner by talking about the desire to "forget" or "not think about it for a while," while helping patients confront the realities of their disease in very concrete, practical terms.

The action-oriented problem-solving strategies characteristic of a fighting spirit are more consistently associated with positive outcomes than are avoidant strategies—as long as there are aspects of the disease that are within direct control. **Counselors can assist their HIV-infected patients in developing multiple coping strategies and applying them differentially to various situations that arise during the progression of the disease**. For example, as patients become sicker, they might be encouraged to focus less on searching for new treatment modalities and more on relaxing, dealing with family members, completing unfinished business, and making arrangements associated with wills or durable power of attorney.

ENSURING COUNSELOR FLEXIBILITY:

Counselors working with HIV-infected patients must deal with the issue of follow-up with patients who enter the hospital or who are homebound with the illness. They may have different policies on whether or not they will visit, make phone calls, etc. **Counselors need to be clear with themselves and their patients about the extent of their boundaries and limits**. Close follow-up in times of acute illness can be extremely meaningful and important to maintaining a strong therapeutic relationship. Valuable emotional work can take place while patients are in the hospital, even if they are moving in and out of clear cognition and communication.

FOSTERING FAMILY INTERVENTION:

More structured family or "systems" therapy may also be indicated for patients at any stage of illness and should be considered. Patients may have experienced a lifetime of discrimination and abuse from family members as a result of their sexual orientation and/or addiction. Lovers and friends who have been there all along for the patient with HIV infection may find themselves snubbed by family members, excluded from decision making, kept out of hospital rooms, and barred from entering the family home where the patient has returned as a result of diminishing health and/or failing finances. Because the desires of patients with AIDS sometimes conflict with the competing interests and expectations of families, friends, lovers, and health care providers, **counselors may find themselves in a mediating role**.

The role of mediator often expands to providing support to significant others who are coping with feelings of impotence, grief, and anger stimulated by patients' impending death. Assistance often involves helping the family recognize its limits while working through grief and guilt about not doing enough for sick family members. Friends and family frequently withdraw during the end of life for a variety of reasons, ranging from feelings of inadequacy and guilt to fears of contamination. Patients who are dying also withdraw, as a way of letting go. **Families and friends need to know that withdrawal is natural and not a slight against them**.

TALKING ABOUT DEATH AND DYING:

Often the counselor's office is the only place that HIV-infected patients have the opportunity to grieve, and the counselor is the only one trusted to witness and validate their patient's loss. Patients need to grieve the loss of health and the loss of their dreams and aspirations. HIV is a disease of many losses, and it challenges competent counselors to uncover sources of hope.

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Because spiritual questions often arise, patients may want to talk with their counselor about the meaning of life, death and the process of dying, and afterlife. **Counselors must communicate their willingness to discuss such issues when patients are ready. Patients may need to be reassured that their discussion of death is appropriate and will be helpful to themselves as well as their family members and friends. If counselors feel uncomfortable with such issues, arrangements for pastoral counseling should be made**, although caution must be exercised in choosing a nonjudgmental, compassionate clergyman who is experienced in working with patients with AIDS.

Counselors can support their AIDS patients who are confronting decisions pertaining to how they want to be cared for as well as where, how, and when they wish to die. It is common for patients to delay decisions about wills, living wills, do-not-resuscitate orders, durable power of attorney, guardianship of children, and funeral arrangements because such decisions require them to confront the emotional and practical realities of death. **Counselors can assist their patients by providing them with information about their options, pointing out ways in which others can assume control over their lives and deaths if they do not explicate their wishes, directing them toward local legal resources, and supporting their efforts to control those things that can be controlled**.

Counselors should encourage patients to describe their personal definition of a "safe passage" (a tolerable death with as little discomfort as possible) through the dying process. They should ask clients what would help to make the situation more tolerable and what special fears do they have? The provision of a safe passage can also serve to mitigate against suicidal ideation, which is often an attempt to ensure a painless death.

Although there is no single way to approach dying patients, it is important to approach them with an open mind and respect. **Generally, at the end stage of the disease, patients are more aware of their needs, strengths, and weaknesses than are counselors**. As the focus of hope shifts, counselors can assist patients in redirecting their energy to thoughts, goals, and activities related to what matters most to them at that time. Counselors may find themselves becoming more passive yet very *present* in their work. Experienced counselors sometimes refer to themselves as witnesses at this stage.

Career-Related Decisions

The decision of whether to stop working is a difficult and complex one for persons with AIDS. Given their functional impairment (physical and/or cognitive), **some persons have no choice but to stop working and go on disability leave. However, many others *do* have a choice**, and they must consider the advantages and disadvantages of both continuing to work and to going on disability leave.

Taking a leave of absence due to disability **provides the opportunity for patients to spend their remaining time doing what they enjoy most**. Nonetheless, the **stigma of disability** as yet another indicator of illness progression can be difficult to cope with and **often requires some adjustment**.

The advantages associated with continuing to work include **maintaining a feeling of productivity and purpose as well as maintaining a sense of normalcy**. Perhaps one of the biggest factors in this decision-making process is **whether work is stressful and burdensome** (in which case retirement would be a relief), **or whether work is a source of enjoyment and fulfillment**. Other factors include **financial constraints** and the **amount of disability compensation**.

Similarly, considering a career change can be stressful and raise many of the same concerns described above. **A diagnosis of AIDS should not be the sole determining factor in someone's refusal to consider a change in**

employment. Although it is important to consider factors such as health care coverage and finances, **quality of life remains the most important consideration**.

Conclusion

Saying goodbye is difficult and tends to be avoided by counselors. An important question that therapists should repeatedly encourage their dying patients to consider is: **"Is there anything that feels left unsaid or undone?" Counselors should ask the same question of themselves. Without such questions, counselors place themselves at great risk for emotional blocking connected with unexpressed anticipatory grief**. To be helpful to dying patients, counselors must remain emotionally present in the relationship while maintaining a sufficient degree of self-monitoring to ensure that interactions with patients are not used to work through their own unresolved grief. Counselors need a place to work on such issues, perhaps in supervision and through support from colleagues.

Being a counselor to patients with AIDS is as rewarding as it is challenging. The task of counselors can seem so enormous and relentless that they occasionally may feel discouraged. Counselors need to support each other in this work and give themselves permission to take breaks so that burnout is avoided and their work can be continued productively.

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Questions Based On This Lesson

37. Early reports and published research on the prevalence of psychiatric disorders among patients with HIV infection indicate:

A. Low rates of psychiatric distress

B. High aggregate rates of syndromal mood disorders

C. Widespread clinical depression

D. A consistent pattern of diagnosis

38. Which of the following statements about denial is false?

A. In a patient with HIV infection, it is extremely detrimental and should always be discouraged.

B. It can be a coping strategy in certain instances.

C. It sometimes prevents a patient from attending to real symptoms and events that require medical attention.

D. It reflects the patient's desire to "forget" or "not think about it for a while."

39. To manage anxiety and achieve a feeling of control, the counselor should encourage the client to do all but which of the following?

A. Gather information about the disease and various treatments

B. Make lifestyle changes, such as reducing alcohol and other drug use

C. Establish a trusting relationship with a friend

D. Make managing his or her physical condition the central focus of his or her remaining life

40. In helping a client manage his or her condition, counselors should help the client:

A. Feel more comfortable talking about death and dying

B. Develop relationships with medical providers and become active members of the medical team

C. Negotiate financial obstacles to pursuing treatment

D. All of the above

Directions in Rehabilitation Counseling

VOLUME 5 • LESSON 11

Low Back Pain Case Management: An Approach for Vocational Rehabilitation Counselors

Steven J. Scheer, MD

Dr. Scheer is Professor and Director, Department of Physical Medicine & Rehabilitation, University of Cincinnati Medical Center, Cincinnati, OH.

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Editor's Note

In the intense debate over the future of health care, Americans have been examining the strengths and weaknesses of their health care system...especially focusing on how services are delivered. One of the system's undeniable strengths is the high level of specialized care offered by various care providers. However, as some critics point out, this asset can prove to be problematic. Management of low back pain (LBP) provides a perfect example. Because low back pain is a medical disability in most cases, the diagnosis is made by a physician, and this person typically performs the more technical aspects of assessment (e.g., medical history and laboratory studies). But then what? As Dr. Scheer explains, physicians are not trained in the important areas of assessment of ability or restoration of function. However, rehabilitation counselors (whether they are oriented toward vocational counseling, behavioral psychology, or physical therapy) *are* trained in these areas. Therefore, it is easy to see how and why case management has become so important to the field of rehabilitation. Indeed, the mechanisms through which health care is delivered in the United States will continue to require integrated treatment approaches, with the various practitioners (in the case of LBP, the physician, behavioral psychologist, and rehabilitation counselor) delivering the care in which they specialize.

This lesson serves as an invaluable resource for counselors working with clients who have low back-related industrial injuries, which can be extremely frustrating. Medical uncertainty about back impairments and their etiologies, the lack of correlation between a stated diagnosis and functional capacity, and a wide variability in employers' flexibility all contribute to the challenging nature of this type of work. It is imperative that counselors be able to recognize and understand the nature of the various types of LBP impairments. Accordingly, Dr. Scheer explains (and provides some illustrations) for degenerative disc disease, herniated lumbar disc, spinal stenosis, spondylolisthesis, spinal fracture, spinal cancer, osteoporosis, inflammatory diseases, and idiopathic LBP. Risk factors for injury occurrence, issues related to assessment, and treatment options are discussed as well.

Introduction

Questions abound regarding the science and practice of low back pain (LBP) case management. **Uncertainty about the impairment and its etiology, lack of correlation between a stated diagnosis and functional capacity, and wide variability in the flexibility of employers all cause difficulty for rehabilitation counselors, who become troubled by the completely different turns that LBP cases can take.**[1,2] For instance, two clients with the same stated diagnosis and apparently similar physical limitations may take markedly different amounts of time to return to the same type of work.[1]

Recent nationwide establishment of industrial injury clinics and the Commission on Accreditation of Rehabilitation Facilities (CARF)[3] certification of countless "work-hardening" programs have created the perception of benefits that can be derived from an organized work-directed approach. Scrutiny of the literature, however, has not established which LBP interventions are truly efficacious (S.J.S., K.L. Radack, D.R. O'Brien, unpublished data, 1994).

This lesson is designed to educate counselors and outline a reasonable approach to dealing with industrial LBP cases. It documents that well-coordinated case management can make a great difference in the ultimate settlement of these cases.

Defining Impairment, Disability, and Handicap

In 1980, to commemorate the "International Year of the Disabled," the World Health Organization commissioned a Manchester, UK, rheumatologist, Dr. Philip H. N. Wood, to organize known functional assessment techniques into a new taxonomy of disability. The resulting system was published in *The International Classification of Impairments, Disabilities, and Handicaps* (ICIDH),[4] which established **three categories of disease sequelae: *impairment*—an injury of a body part, disease, or anatomic flaw; *disability*—bodily dysfunction, inability, or altered capacity to perform activities of daily living, locomotion, or work; and *handicap*—inability to assume a role due to a societal barrier.**

The ICIDH system is useful in moving beyond the limitations of the medical model of illness, which deals well with short-lived conditions but not with the chronic after-effects of certain diseases and physical injuries. The worker with LBP due to a herniated disc (impairment), for example, can be further described as having a functional capacity to lift no more than 25 pounds or to sit in a truck for only 1 hour (disability). This functional status may or may not lead to a work handicap, because the employer may be willing to make job accommodations. **Impairment, disability, and handicap have thus become interdependent, but mutually exclusive, concepts. It is important for vocational counselors to understand and recognize the relationships, but also to appreciate the distinctions.**

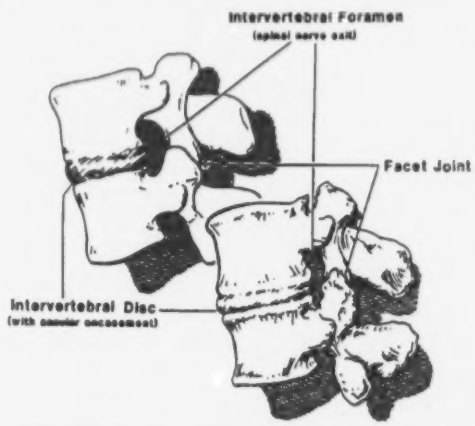
LBP Impairments

LBP is typically multifactorial and extremely difficult to define. The astute vocational counselor will note that the same client may be attended by two physicians who label the client's condition entirely differently. **Because there are so many potential pain-sensitive structures in the back, a decision on the exact cause of acute or chronic LBP is usually speculative.**[2] Although diagnostic uncertainty often exists, specific categories will serve to explain some of the possible causes of LBP. Limits of space preclude lengthy details.

DEGENERATIVE DISC DISEASE:

Narrowing of disc space and development of bony spurs (osteophytes) are manifestations of this entity (Figure 1), present in virtually all adults to varying degrees. Single-level excessive degeneration is not associated with an increased incidence of LBP, but LBP is more common in clients with severe degenerative changes at multiple disc spaces.[5-7] **Mechanisms of the pain are speculative.**

Figure 1
PROGRESSIVE DEGENERATION OF A LUMBAR DISC



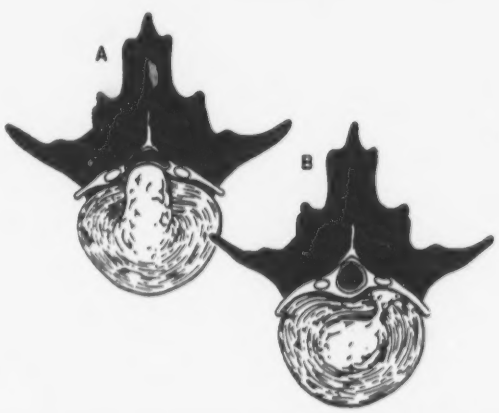
Top—Disc is intact and shows no evidence of collapse. Bottom—As the degenerative process progresses, disc height decreases, the annulus frays, and the posterior facet joints show osteophytic overgrowth that impinges on the intervertebral foramen.

HERNIATED LUMBAR DISC:

When the spongy material that separates each vertebral body extrudes through its own protective covering, a herniated nucleus pulposus (disc) has occurred (Figure 2). The symptoms of numbness, pain radiating down the leg, and muscle weakness, as well as knee or heel reflex changes and an abnormal straight-leg-raising test, are due to the impingement of disc material on nerve roots.[8,9] **When a large disc fragment herniates straight back, the cauda equina syndrome may result, with rapid neurologic loss of leg muscle control, bowel/bladder incontinence, and loss of sensation between the legs[10]; this is a neurosurgical emergency.**

Short of this emergency, **clients with a herniated disc often do not require surgery; contrary to popular belief, a majority of clients with this condition will heal with conservative measures alone.**[2,11] Equally important is the repeated finding of a radiologically demonstrated herniated disc in asymptomatic clients; **20%–30% of myelograms (contrast dye introduced into the spinal column),[12] computed axial tomography (CAT) scans,[13] and magnetic resonance imaging (MRI) scans[14] are falsely abnormal.** This may partially explain why some sufferers of LBP do not improve after removal of a radiologically confirmed herniated disc. **The proportion of all clients with LBP who undergo surgery for disc herniation is only 1%–2%.**[15]

Figure 2
HERNIATED NUCLEUS PULPOSUS

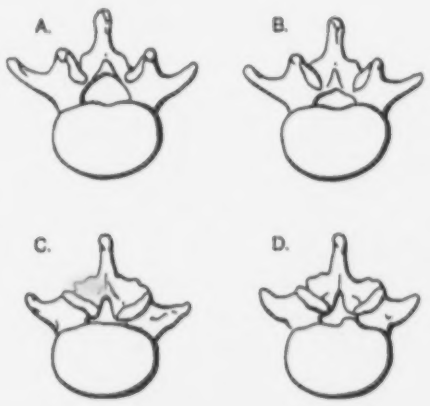


(A) Massive extrusion of disc material, almost obliterating the spinal canal completely. (B) Large sequestrated disc fragment that has migrated into the foramen and severely compressed the nerve root.

SPINAL STENOSIS:

Spinal stenosis (Figure 3), a condition characterized by a narrowing of space either centrally or laterally in the spinal canal, can be congenital or acquired.[16] Lateral recess stenosis occurs commonly when the facet joints (see Figure 1) degenerate with bony overgrowth and produce symptoms similar

Figure 3
TYPES OF LUMBAR SPINAL STENOSIS



(A) Normal canal. (B) Congenital developmental stenosis. (C) Degenerative stenosis, as from facet hypertrophy. (D) Degenerative stenosis with disc herniation.

to lateralized irritation effects. Central spinal stenosis may be congenital or may become symptomatic over time as the space within the spinal canal narrows with degenerative changes. Severe spinal stenosis may involve multiple nerve roots. A characteristic type of pain associated with spinal stenosis is called **neurogenic claudication, in which clients have pain when they stand still, cough, or sneeze.**[17,18]

SPONDYLOLISTHESIS AND OTHER CONGENITAL ABNORMALITIES:

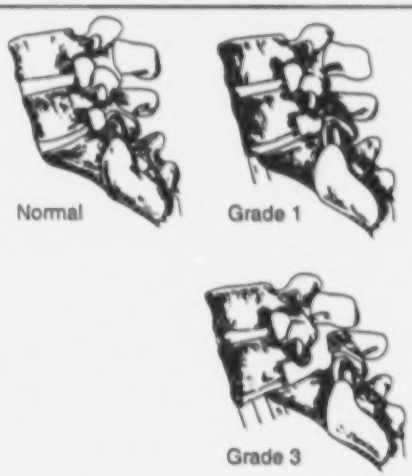
Spondylolisthesis (Figure 4) is a congenital or acquired defect of the posterior bony elements with slippage forward of the vertebral bodies; generally, either the fourth lumbar segment slips on L5, or the L5 segment slips on the first sacral segment.[19] The rate of spondylolisthesis in the general population is roughly 3%.[20,21] Although its association with LBP is controversial, most investigators believe the disorder is a contributing factor.[22] Nevertheless, even clients with moderate degrees of slippage (up to grade II) have been shown to respond well to nonsurgical management over several decades of follow-up.[23]

Other congenital abnormalities, such as **idiopathic adolescent scoliosis and Scheuermann's disease** (adolescent round back), occur equally as often in clients with LBP and clients without LBP; therefore, **these abnormalities should not be used to rule out a prospective worker's chances to be employed.**[24,25] The Americans with Disabilities Act (ADA) helps to protect workers against this sort of arbitrary discriminatory practice.[26]

SPINAL FRACTURE:

Three types of fractures relate to the vertebral body, its cartilaginous endplate, or

Figure 4
SPONDYLOLISTHESIS



Spinal slippage, usually of L5 on S1 (as shown here) or of L4 on L5, is measured in degrees: grade 1, less than 25% of vertebral width; grade 2, less than 50%; grade 3, less than 75%; grade 4, more than 75%.

the projecting posterior elements of the vertebral segment. Only a very small percentage of these fractures result in neurologic compromise.[26,27] More commonly, the cumulative weight-bearing activities of **lifting, carrying, and unloading heavy containers result in subtle endplate fracture**, which falls in the category of idiopathic LBP due to the difficulty in diagnosing it with certainty.[27]

SPINAL CANCER:

Metastatic cancer to the spine from primary lung, breast, or prostate cancer, primary spinal tumor, or multiple myeloma (a bone marrow cancer) is **quite an uncommon cause of LBP but does occur in a working age population.**[2,22]

OSTEOPOROSIS:

Osteoporosis (loss of bone mass) is an increasingly recognized entity in women older than 40 years.[28] **Its presence does not predispose to LBP per se, but the increased likelihood of vertebral fracture is of great concern.** It remains difficult, unfortunately, to quantify the limits of safe lifting to avoid osteoporotic fracture.[22]

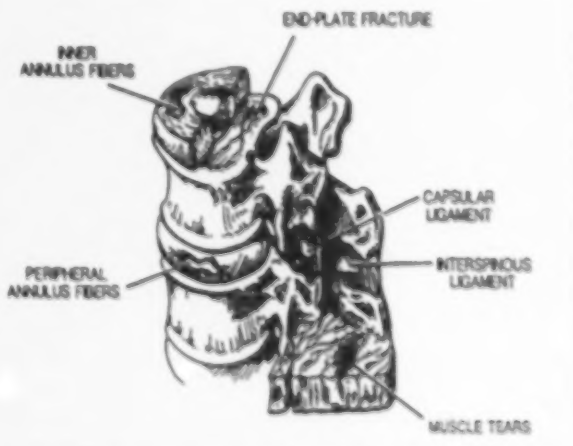
INFLAMMATORY DISEASES:

The spondyloarthropathies are rheumatoid-like arthritis variants affecting the spine. Examples include ankylosing spondylitis (arthritis of the spine) and psoriatic arthritis (which occurs concurrently with psoriasis). **These conditions occur infrequently and are generally associated with morning stiffness, a slow and insidious onset of symptoms, and an increasing spinal flexion deformity.**[29]

IDIOPATHIC LBP:

The most common type of LBP, idiopathic LBP, is also the most difficult to characterize (Figure 5). Up to 85% of clients with LBP cannot be given a definitive diagnosis because of equivocal associations of symptoms, physical findings, and imaging studies.[2,30] **The conditions are generally labeled as "lumbar strain," "musculoligamentous" LBP, "tension" backache, or another term that may or may not be accurate, reflecting the difficulty in characterizing the cause.**[29] Interestingly, these cases of idiopathic LBP, without defined cause, are as common a source of chronic LBP as those diagnoses that can be clearly established.[22]

Figure 5
IDIOPATHIC LBP



Acute back strain, which may involve damage to ligamentous structure, muscle, or the vertebral endplate.

Disability Assessment and Elimination of Handicap

In most cases, the degree of functional incapacity resulting from a back injury is of greater importance than the impairment. Soon after the injury, the pain, muscle guarding, inflammation, limitation of motion, and neurologic change are limiting factors in function. The acute effects of soft-tissue injury subside over a 2–6-week period; the large majority of LBP, injured muscle and ligament, inflamed facet joint, and other minor injuries heal readily, leaving little or no permanent change in functional capacity.

However, in lengthier back illnesses, as may occur with a herniated disc or in cases of LBP chronicity, functional capacity may deteriorate with disuse or because of the worker's fear of reinjury. **A functional capacity evaluation (FCE) (Figure 6) is a useful index of a worker's need for restorative reconditioning therapy, job modification, or both.** An FCE also may be used to document rehabilitation progress.

The ability to return to work is ultimately a combination of a worker's ability and comfort, freedom from risk, job availability, and an employer's receptiveness to the worker, including flexibility to adapt the job if necessary.[1] Elimination of a societal handicap against the returning injured worker is a contribution of the ADA. **By forcing employers to define "essential job tasks," the ADA mandates employers to accommodate qualified but partially disabled workers who were previously unable to overcome their limitations sufficiently.**[26]

Injury Occurrence

CAUSALITY:

Although epidemiologic evidence of an association between LBP and certain occupations does exist, the establishment of work-relatedness to a back injury claim can be a perplexing determination.[22] Most often, the worker's statement of an association of a fall or strain with the work place is accepted at face value. Physicians are asked to state whether the nature of the injury supports the worker's claim, but **most of the time, there is no way to substantiate work-relatedness**; the back injury may be the result of cumulative overuse from 36 holes of golf as well as of repetitive lifting. **The denial of causality by the employer, forcing a worker to use private insurance to pay for medical care—and, more important, to be without wage coverage until he or she returns to work—often is bitterly fought by the worker. A causality dispute may easily lead the back claimant to feel distrust and hostility toward the employer. Case managers must recognize the potential for a lengthier claim and legal involvement as soon as a causality dispute occurs.**

RISK FACTORS:

Three occupations tend to have the highest rate of associated LBP: **truck driver, material handler, and nurse.**[31] Certain mechanical aspects of these and other

Figure 6
RELATING WORKER PHYSICAL CAPACITIES TO JOB DEMANDS

Basic Strength/Endurance Factors

Factor	*Job Requirement*	*Worker's Capacity*
Lifting below waist, occasionally	_____ lb	_____ lb
Lifting above waist, occasionally	_____ lb	_____ lb
Frequent lift or carry	_____ lb	_____ lb
Push	____ lb ____ ft	____ lb ____ ft
Pull	____ lb ____ ft	____ lb ____ ft
Stand—at one time	_____ hr	_____ hr
Stand—total in one shift	_____ hr	_____ hr
Walk—at one time	____ hr ____ ft	____ hr ____ ft
Walk—total in one shift	____ hr ____ ft	____ hr ____ ft
Sit—at one time	_____ hr	_____ hr
Sit—total in one shift	_____ hr	_____ hr

Other Physical Factors

Factor	*Job Requirement*	*Worker's Capacity*
Climbing—stairs	___ F ___ O ___ N	___ F ___ O ___ N
Climbing—ladders	___ F ___ O ___ N	___ F ___ O ___ N
Stooping/bending	___ F ___ O ___ N	___ F ___ O ___ N
Prolonged/stooping	___ F ___ O ___ N	___ F ___ O ___ N
Kneeling	___ F ___ O ___ N	___ F ___ O ___ N
Crouching	___ F ___ O ___ N	___ F ___ O ___ N
Crawling	___ F ___ O ___ N	___ F ___ O ___ N
Torso twisting	___ F ___ O ___ N	___ F ___ O ___ N
Horizontal reach	___ F ___ O ___ N	___ Unlim. ___ Lim.
Vertical reach	___ F ___ O ___ N	___ Unlim. ___ Lim.
Handling	___ F ___ O ___ N	___ Unlim. ___ Lim.
Fingering	___ F ___ O ___ N	___ Unlim. ___ Lim.
Feeling	___ F ___ O ___ N	___ Unlim. ___ Lim.
Seeing	___ F ___ O ___ N	___ Unlim. ___ Lim.
Hearing	___ F ___ O ___ N	___ Unlim. ___ Lim.
Speaking	___ F ___ O ___ N	___ Unlim. ___ Lim.

Key: *F=Frequently; O=Occasionally; N=Never; Unlim.=Unlimited; Lim.=Limited*

jobs have been associated with greater risk of LBP for their work forces: **physically heavy work, static work posture, lifting and forceful movement, frequent bending and twisting, vibration, and repetitive work.**[32] **Controversy has evolved over the value of preemployment functional testing to lessen the chance of subsequent on-the-job back injury.**[33-35] Battie and colleagues[35] showed that **job satisfaction and related psychosocial factors were better predictors of subsequent back pain than were any physical predictors.** Cady and associates,[34] however, demonstrated the **value of fitness** in a prospective study of Los Angeles fire fighters: the most physically fit new recruits had the fewest episodes of LBP in the subsequent 3 years; recruits who were least fit had the highest number of LBP claims.

Assessment

MEDICAL HISTORY:

Readers of the physicians' medical histories of injured workers can expect a number of important inclusions: the nature of the pain (its onset, duration, postural associations, location, and radiation); **associated medical problems** (bowel/bladder dysfunction, sexual problems, muscle weakness, sensory loss, or joint radiation); **results of diagnostic tests; types of pharmacologic, physical, and surgical treatments and their effects; the extent of functional disability** (average day of activity, lifting and other functional tolerances, and awareness of proper body mechanics); **complete history of previous injuries, treatments required, and length of recovery for those events; psychosocial stressors** (pain-promoting circumstances at home); and **vocational issues** (job description, job desirability, and satisfaction with employer).

Sciatica (sharp pain radiating into the leg, usually down the posterior or lateral surface, to the foot), in occasional association with numbness or tingling, **is the first clue to nerve root irritation.**[9,29,36] **Absence of sciatica suggests, but does not prove unequivocally, that the LBP is unlikely to be associated with neurologic involvement or disc herniation.** The leg pain of sciatica is frequently more painful than the LBP.[29]

In addition, counselors should inquire about other nonrelated medical problems and the degree of their associated functional limitations. **Mention of a history of cancer in a worker with LBP necessitates inclusion of a workup to rule out metastasis to the spine as the cause of the present episode of LBP, particularly in any workers older than age 50.**[37]

New-onset LBP in postmenopausal women should raise the possibility of vertebral compression fracture as the cause of the LBP. The importance of previous work-related injury and time until return to work cannot be overemphasized.[38,39] It has been noted anecdotally that a worker will take increasingly greater time to return to work with each successive work injury.

Rehabilitation counselors should casually investigate the motivation of a back-injured client who wishes to return to work; this way, they can determine the new situation in the home now that one adult household member is not employed. Furthermore, possible vocational or psychosocial stressors that might delay recovery should be identified.

PHYSICAL EXAMINATION:

The straight-leg-raising (SLR) test is variably interpreted; nonetheless, it is probably the best physical examination method for establishing the likelihood of neurologic LBP. Disc herniation causes a nerve root to be put on traction; **as an examiner raises the leg of a supine client passively, with the client's knee extended fully, tension transmitted to the nerve root causes pain to radiate down the leg into the distribution of the nerve fibers.**[1] A possible cause of pain in the range of 30°–60° (the angle between the table and the raised leg) is considered to be nerve root tension. An SLR test of less than 30° is more likely due to tight muscles being stretched; an SLR test of greater than 60° has not

been shown on cadaver studies to increase nerve tension.[9,40,41] **The mere presence of an SLR test between 30°–60° does not prove a herniated disc**, because other causes of referred leg pain also have been noted, such as facet joint irritation (Figure 1) or spinal stenosis (Figure 3). **The lack of an abnormal SLR test, however, almost certainly rules out a herniated disc against the L5 and S1 nerve roots.**[29] To test for L3 and L4 nerve root tension, involved in only 2% of disc herniation, a stretch of the femoral nerve by prone knee flexion is best compared with the SLR test.[29]

Palpation of the back, bending and leg stretching ability, and assessment of alignment and gait should be included to determine the extent of soft-tissue involvement and the functional limitation of mobility. These aspects of the examination are also useful indicators of the progress of therapy. Unfortunately, the physical examination is notoriously unreproducible among examiners.[42] Ankle reflexes, for example, are late to change even with proven disc herniations that affect the S1 nerve root, the one related to downward foot movements.[43] Sensory examinations are frequently very difficult to interpret.[28]

In 1980, Waddell and associates[44] studied the signs of hysterical symptom magnification in chronic sufferers of LBP. **The researchers identified five signs, which came to be known as the "Waddell signs," to distinguish persons who could benefit far more from a multidisciplinary chronic pain behavioral approach than from surgery. The five signs are: nonanatomic tenderness; pain with simulated spinal rotation or loading; inconsistency of muscle testing on distracted retesting; regional strength or sensation peculiarities; and observed overreaction to the examination.**

LABORATORY STUDIES:

Plain x-rays are of little or no value in most clients with LBP. In most cases of LBP, there is no need for laboratory studies; **the clinical history and physical examination are sufficient.**[2,29,43] For injured workers who undergo more extensive tests, the results can only be interpreted in correlation with the history and physical examination. As previously noted, falsely abnormal results from imaging studies in asymptomatic persons have lessened the value of CAT and MRI scans in LBP. **Use of electromyography is indicated in cases of uncertain neurologic involvement**, such as those with equivocal weakness or uncertain reflex changes, or for differentiating between neurogenic and disuse muscle atrophy.

Treatment

Treatment recommendations for LBP are highly anecdotal. Of more than 6000 citations on LBP published over the past 15 years, only 41 randomized controlled trials—the gold standard of scientific research—proved or disproved the efficacy of a given LBP intervention (S.J.S., K.L. Radack, D.R. O'Brien, unpublished data, 1994). **A major difficulty in studying treatment approaches in recently back-injured persons is the natural recovery that occurs**; 40%–50% of workers who remain home after back injury will return by 2 weeks; 60%–80% by 4 weeks; and 85%–90% by 5 weeks.[33,46] Most workers do not miss any work despite continuing pain.[45–48] For these reasons, any useful studies on interventions for acute LBP should compare control and treatment groups so the natural recovery process can be taken into account.

Although LBP is usually short-lived and generally self-healing, low back disability is more a client-specific and less readily treatable condition due to its relationship with psychosocial and vocational factors beyond the control of medical intervention. The latter phenomenon may result in treatments being tried unsuccessfully due to the application of physical approaches against a nonphysical "sickness."[48] If a worker with LBP has not returned to work by 3 months, a process of internalized disability may occur, which delays further recovery and may result in a worker's never returning to the job ("worker's disability syndrome").

These disclaimers of the natural recovery process, and the greater "sickness" in worker perception, indicate the need for other ways to decide on proper treatment approaches. **The recommendations of Deyo[45] are the most useful as a simple screening tool to direct the rehabilitation of clients with LBP. Deyo proposed that health care providers handling persons with LBP ask three questions: Is there a systemic or visceral cause of LBP? Is there neurologic compromise suggesting the need for surgery? Do findings on examination affect the choice of treatment? Suggestive historical information, failure to respond to traditional acute therapy, and a high index of suspicion signal the need to rule out a nonmechanical cause of LBP.** For example, presentation of LBP in an elderly person without a previous history should prompt a practitioner to search for a medical cause.

SURGICAL CONCERN:

A neurosurgical emergency for LBP is exceedingly rare, generally occurring in patients with cauda equina syndrome or unstable spinal fractures.[10] Only 1%–2% of all herniated discs will require surgery, and only 1%–2% of these herniated discs are associated with the cauda equina syndrome.[9,29] Even if neurologic changes of weakness, reflex alteration, muscle atrophy, or sensory abnormality fit a nerve root pattern, there is no reason to assume surgery is needed; **much evidence now exists that neurologic restoration can and does occur spontaneously.[11] However, the time necessary for recovery and return to work after LBP due to a neurologic injury is generally longer than that for idiopathic non-neurologic LBP.[49]**

When natural recovery and conservative approaches have failed to relieve LBP associated with neurologic injury, or when neurologic deficits progress, surgery should be considered.[2,45] Occasionally, severe and unremitting pain alone is a sufficient indication for surgical removal of a herniated disc. **The time to return to work after surgery varies and may relate to the intensity of physical effort necessary at work, the opportunity for rest breaks, and light-duty options.** In Rowe's study[50] of post–laminectomy patients, the total time away from work averaged 14 weeks. Using microsurgical techniques, Camp[51] reduced the time out of work to only 38 days.

EXAMINATION-DIRECTING APPROACHES:

Most commonly, there are no neurologic findings on physical examination.[47,52,53] This fact lends credence to the high rate of idiopathic LBP without any localizing signs. Provocative maneuvers on examination can be helpful in directing treatment approaches. In view of the limited evidence of efficacy of treatment before 2–4 weeks, an argument could be made (with some justification) for the administration of an analgesic medication, muscle relaxant, and a slowly introduced stretching exercise without any referral for physical therapy.[48]

As health professionals, we seem to feel a moral obligation to do *something*, even if the benefit derived is no better than that of placebo.[54] For this reason, workers with acute LBP are generally referred for heat, stretch, massage, and general exercise by a physical therapist; or they may choose to be manipulated by a chiropractor. Such conservative therapy may last for 1–6 weeks or occasionally longer.[55–57] **The longer the need for treatment, the more likely the need for an FCE to ascertain the readiness for performing work tasks.** It is foolish to ask a physician to assess work capacity on the basis of a physical examination in any worker on sick leave for more than a few weeks unless the work is sedentary. **The value of back school for the worker with acute LBP is controversial; at present, the bulk of the evidence does not favor its usefulness.**[56,58,59]

The approach to management of chronic LBP is of great importance. A retrospective study conducted in the 1980s at Boeing revealed that 79% of the costs of case settlements in all the workers with LBP in an 18-month period were spent on the 10% of the group members whose back pain was chronic.[60] **Employers have long**

known that to control the bulk of the costs associated with returning workers with LBP to the work place, prevention of chronicity should be a major goal. Nevertheless, safe and timely reemployment of injured workers is a great challenge that continues to frustrate employers and insurers alike.

A syndrome known as the "worker's disability syndrome" has been described.[61] In this syndrome, a worker exaggerates the effects of injury or illness, displaying a high degree of subjective disability often without objective medical findings; engages in symptom magnification; emphasizes the secondary gains associated with injury or illness, such as increased attention from health care providers, family, or friends; prefers to receive financial compensation rather than earning wages from work; tends to hire attorneys to litigate claims to maximize a financial settlement; and displays a tendency to blame an employer for the injury, using the compensation process as a means of "getting even."

Two types of approaches have been considered for dealing with this syndrome. The first, known as a *chronic pain program approach*, adopts a multidimensional and behavioral methodology. Drug detoxification, incremental functional restoration, pain behavior modification, and regained self-confidence to return to productive life all become a part of successful treatment.[62] Treatment can be provided on an inpatient or outpatient basis and is generally overseen by a behavioral psychologist.

The second approach, sometimes referred to as *work hardening*, involves a work-specific treatment in which the chronically injured worker is reconditioned through a directed and goal-oriented program of rehabilitation.[61,63] One such program involves a converted garage or health care facility transformed into a work-like setting with simulation of the job tasks actually performed at this "work site." The worker gradually increases the amount of time and effort expended in performing activities similar to regular duties until the degree of functional capacity for work has essentially returned to the degree required for the job. In a related type of program, a worker actually undergoes rehabilitation while attending the job site, performing transitional work that gradually leads up to the status of full and active duty.[63] The latter type of program should formalize the return-to-work process while allowing the employer to retain some control over the nature of the rehabilitation. Occasionally, job site modification and accommodations must be made by the employer to facilitate the work return process. Once again, use of functional capacity testing may assist the worker and the treatment team to ascertain the improving capacities of the worker.

Any given worker with LBP may require elements of conservative and work-hardening treatment approaches. In the most successful back rehabilitation programs, involved therapists, counselors, and physicians employ a number of approaches to tailor a program to fit the injured worker's individual needs and job demands.

Case Management

Henry Sigerist[64] once said that "occupational illnesses are not biologically different, just socially different." Physicians' training does not include a number of important concepts in assessment of ability or restoration of function.[65] There is insufficient training in mobility, self-care, home safety, and vocational issues such as work place hazards and the effects of medical problems on work performance.[66] Nor is there a conceptualization of the worker's compensation insurance system in physicians' training.[67]

The medical model incorporates a physician-directed pursuit of diagnosis and application of treatment. When the diagnosis does not fully explain the worker's claimed incapacity, and treatment is not fully successful in relieving the work limitations (although tissue

healing should have occurred), there is an impasse that drives care providers to doubt the veracity of the worker and compels the worker to maintain the disability in order to continue to receive compensation benefits. A physician or counselor who understands the distinctions between impairment, disability, and handicap is less likely to have difficulty in diplomatically resolving the work return issues of a worker without objective physical findings.

The biopsychosocial model is a more productive way to view the circumstances.[48,68] In this format, the relationships of worker, labor and management, and medical and allied health services all operate in a synchronized fashion. **The concept of case management, rather than spontaneous case evolution, should ideally prevent the development of conflicting self-interests that postpone or potentiate an LBP claimant's resettlement.** Proper case management ensures that an injured worker maintains a connection to the work place. **All care providers involved in work injury rehabilitation should learn the biopsychosocial model of work disability resolution.**

In summary, case management is ideally performed by a vocational rehabilitation counselor. **Awareness of the possible enabling or confounding factors that affect the return-to-work process, as illustrated in Table 1, helps involved case managers avoid the potential pitfalls of resettling an injured worker.** The table provides a set of influences that will lead to earlier success and a contrasting list of delaying factors in returning a worker with LBP to the job.

Table 1
Factors Associated with Early Return to Work after Industrial Injury

	Enablers	*Confounders*
Worker	Strong work ethic; acute need of money; sufficient functional capacity for job demands	Poor pathology; previous injury history; prevailing psychosocial issues; drug dependence
Insurance	Seen as facilitating; worker's compensation does not apply	Slow worker's compensation start-up; lag in treatment authorization
Physician	Communicative; advocating; competent; confidence-restoring	Return to work urged too soon (or late); unempathic physician proposes unnecessary treatment
Treatment	Expeditiously started, including necessary education; work-directed	No exercise; job functions not addressed
Employer/ Union	Showing concern; advocating; flexible	Indifferent; maintains job unchanged; demands full-duty return immediately
Job Site	Adapted easily, enticing; allowing job autonomy	No light-duty; job trauma expected to continue; supervisor conflict maintained
Attorney	Job discrimination averted	Litigation

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QUESTIONS BASED ON THIS LESSON

41. According to the author, which of the following is considered the best examination method of establishing the likelihood of neurologic LBP?

    A. Plain x-rays

    B. Assessment of alignment and gait

    C. Electromyography

    D. The straight-leg-raising test

42. Which of the following is *not* used as a "Waddell sign" to distinguish persons who could benefit more from a multidisciplinary chronic pain behavioral approach than from surgery?

    A. Consistency of muscle testing on distracted retesting

    B. Pain with simulated spinal rotation or loading

    C. Regional strength or sensation peculiarities

    D. Nonanatomic tenderness

43. According to the author, surgery is needed for LBP when:

    A. Neurologic changes of weakness or sensory abnormality fit a nerve root pattern

    B. Spontaneous neurologic restoration does not occur within 2 months

    C. Neurologic deficits progress

    D. Muscle atrophy occurs

44. Approaches to dealing with the worker's disability syndrome include all of the following *except*:

    A. A chronic pain program

    B. Emphasizing what the worker gains when he or she remains in a state of injury or illness

    C. Incremental functional restoration

    D. Work hardening

Directions in Rehabilitation Counseling

VOLUME 5 • LESSON 12

Sports and Exercise Programs for Persons with Physical Disabilities

Brad Hedrick, PhD

Dr. Hedrick is an Assistant Professor and Supervisor of Recreation Athletics in the Division of Rehabilitation Education Services, University of Illinois at Urbana-Champaign.

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Editor's Note

The rehabilitation profession's efforts to help persons with disabilities gain more control over their lives have placed a great deal of emphasis on helping clients secure competitive employment. Ironically, too much attention to this goal and too little emphasis on helping clients pursue productive, meaningful *leisure* lifestyles often undermines their ability to sustain gainful employment. Study results show that the ability to participate in leisure activities is related to a disabled person's productivity and performance in work settings, and that recreation skills can aid in returning to competitive employment.

The inextricable link between work and leisure is also seen in the arena of health status. Compared to the general population, persons with disabilities have a greater risk of developing debilitating health problems, the majority of which are chronic diseases affected by controllable lifestyle and/or environmental factors, such as exercise, nutrition, smoking, alcohol consumption, and stress management. Although physical activity is identified as a significant factor in reducing these health problems, persons with disabilities have limited access to it. Research shows that they typically avoid participating in strenuous physical activity and, consequently, lead sedentary lifestyles.

Given these and other beneficial consequences of involvement (e.g., improved self-perception and changes in attitudes of able-bodied persons toward those with disabilities), rehabilitation professionals must become advocates for their clients' involvement in physical activity. The author outlines the tremendous variety of adapted sports available to persons with disabilities and how rehabilitation professionals should encourage involvement. Aided by technological advancements, adapted sports are now available to most disabled persons and include goal ball, beep baseball, skiing, hiking, camping, mountain climbing, kayaking, and scuba diving. The responsibility of rehabilitation professionals lies in fostering motivation, education, and active support for lifestyle changes associated with the benefits of participating in sports and exercise programs.

Introduction

In the United States, placing persons with disabilities into competitive employment in the open labor market has long served as the prime directive of the rehabilitation movement. However, little emphasis has been given to helping these persons pursue productive and meaningful leisure lifestyles. It is my belief that **myopic attention to the former challenge, while disregard of the latter, can undermine the ability of persons with disabilities to achieve and/or sustain meaningful employment**. Recent research supports this contention. Bullock[1] developed, tested, and evaluated a **leisure education program designed to assist persons with disabilities in acquiring the knowledge, skills, and attitudes necessary to participate in a variety of community recreation activities.** Results from this study revealed that **the "leisure competence of [individuals with disabilities] was related to [their] productivity and performance in work settings and that a return to gainful employment and full enfranchisement as a citizen is aided through the development of recreation and leisure skills and functioning."**[1]

No problem better illustrates the inextricable link between work and leisure than the precarious health status of persons with disabilities. With advances in medical and health care, chronic diseases have surpassed infectious diseases as the major cause of life-threatening conditions for which there are few efficacious treatments. Whereas the latter maladies were attributable primarily to nonlifestyle agents, chronic conditions are principally attributable to controllable lifestyle and/or environmental factors, such as exercise, nutrition, smoking, alcohol consumption, and stress management.

Unfortunately, persons with disabilities do not appear to be faring well in the management of these controllable health risks.[2] **Compared with the general population, persons with disabilities have a greater risk of incurring debilitating health problems**. These problems only serve to exacerbate existing limitations attributable to disability, thereby further limiting the quality of life for persons with disabilities. Not surprisingly, **physical activity has been identified as a significant factor in reducing the incidence and severity of these health problems.[2] However, because of social, psychological, economic, and environmental barriers, persons with disabilities have limited access to physically active leisure**; therefore, they are restricted in their ability to experience its concomitant effects.

Research reveals that persons with physical disabilities are overwhelmingly inclined to adopt sedentary lifestyles and avoid participation in vigorous physical activity. In a survey of 222 patients discharged with spinal cord injuries, 73% stated that they did not participate in organized leisure outside the home, including physical activity.[3] In 1983, Price[4] found the onset of spinal cord injury to be related to a significantly reduced level of engagement in physically active sports and games. More recently, in a survey of 790 adults with physical disabilities, Coyle and Kinney[5] found the leisure preferences of the survey sample to involve sedentary activities inside the home that required little in the way of physical skill or social interaction. By responding to disability onset with the adoption of **such reclusive, inactive lifestyles**, these **people clearly limit their access to opportunities for the development of healthy, enjoyable social relationships and promote nearly irreversible functional loss by fostering the reduction of already limited functional muscle mass relative to increasing body fat**.[6,7]

Given the health and fitness consequences of the hypokinetic lifestyle of most persons with disabilities, it is clear that rehabilitation professionals must become advocates for their clients' increased involvement in physical activity. However, the success with which an increased pursuit of physical activity is fostered among persons with disabilities is probably contingent upon the approach utilized. "Prescriptive" health promotion programs that attempt to change behavior (e.g., exercise, weight loss, and/or stress management) often are initially

effective.[8] However, adherence to such "clinical" regimens tends to be poor; therefore, their capacity to promote positive, long-term lifestyle changes is suspect.[9] In contrast, **physically active leisure behaviors, which are innately pleasurable and pursued for their own sake, are more likely to be pursued voluntarily throughout one's life.[10] Therefore, promoting the development of the skills, knowledge, and interests necessary for engagement in self-directed, physically active leisure would better ensure long-term adherence to a lifestyle inclusive of physical activity than would a prescriptive approach employing a medical model.**

Benefits of Adapted Sports and Recreation

SOCIAL AND PSYCHOLOGICAL BENEFITS:

Adapted sports and recreation constitute a potentially effective means of enhancing the quality of life of persons with physical disabilities. The onset of physical disability can cause devaluation of the self-perception of a person with a disability as well as the perceptions that others hold of him or her.[11,12] According to the theory of social role valorization,[13] the demonstration of proficiency within highly valued social roles serves to enhance perceptions of self and others regarding the competency and status of stigmatized persons. **Given the irrefutable international significance placed upon competence in physically active sports and recreation, it follows that the demonstration of prowess within adapted sports and recreational activities could reduce the stigma associated with disability.**

Over the years, numerous rehabilitation professionals have offered anecdotal evidence that participation in adapted sports and recreation can enhance the self-esteem and perceptions of competence of persons with disabilities,[14-17] and positively alter others' perceptions of them.[18-20] In terms of the self-perceptions of persons with disabilities, participation in residential camping programs has been found to be related to significant positive changes in the self-concept and/or locus of control of children with disabilities.[21] Participation in wheelchair tennis also has been found to be related to a significant improvement in the general perceptions of physical competence and/or perceptions of wheelchair mobility skills of adolescents with mobility impairments.[22,23]

The joint participation of persons with disabilities and their able-bodied peers in physically active leisure pursuits has been found to be significantly related to a **positive change in the attitudes of the able-bodied participants regarding their copartners with disabilities.**[24] Hedrick[25] and Kisabeth and Richardson[26] also found that joint participation of able-bodied and disabled persons in physically active leisure was associated with a positive change in the able-bodied persons' perceptions of the sport competence of their peers with disabilities. **Although these findings are not conclusive, they support the contention that a positive change in the perceptions of persons with disabilities and others can be elicited via participation of the former in vigorously active leisure pursuits.**

By fostering these positive perceptual changes, participation in integrated physically active leisure activities helps to promote community reintegration and the development of satisfying social roles and relationships by countering the effects of stigmatization, stereotyping, and prejudice.[27] Participation in adapted sports and recreation exclusively designed for participation by disabled individuals has the unique advantage of affording participants (especially those whose disability is of relatively recent onset) the opportunity to learn successful coping strategies from coacting models with similar disabilities.

PHYSIOLOGIC BENEFITS:

Increased access to physically active instructional and competitive adapted sports and recreation programming is needed to stimulate change in the precarious health and fitness status of persons with disabilities. Research has identified that regular participation in

moderately vigorous physical activity is positively related to longevity.[28] Physical activity also has been identified as an **important factor in the prevention/regulation of and/or rehabilitation from coronary heart disease, diabetes, obesity, and various types of cancers.**[29,30] **Research has found increased physical activity to be associated with reductions in the frequency and/or severity of chronic secondary health problems associated with disability onset**. For example, increased physical activity has been suggested to reduce the risk of osteoporosis,[31-33] a condition exacerbated by the process of aging and disuse attributable to paralysis.

Physically inactive persons with spinal cord injuries have been found to have significantly lower levels of high-density lipoprotein (HDL) than their vigorously active counterparts who participate in wheelchair sports.[34] Low levels of HDL are associated with an increased risk of developing cardiovascular disease. Therefore, **it is not surprising that cardiovascular disorders have become the leading cause of death among persons with spinal cord injuries.**[35] This is unfortunate, because it has been well documented that **regular participation in vigorous physical activity can result in significantly enhanced cardiorespiratory functioning** among persons with severe physical disabilities.

In a review of 13 cardiorespiratory training studies involving patients with spinal cord injuries, mean improvements of 20% in maximum oxygen consumption and 40% in physical work capacity were seen after 4–20 weeks of training.[6] Huss[36] achieved similar results when he introduced patients with spinal cord injuries to aerobic exercise involving 30 minutes of activity at 60%–80% of maximum effort 3 times per week. Stotts[37] compared persons with spinal cord injuries who participated in wheelchair athletics with a group of inactive adults with spinal cord injuries and found the active adults had **fewer kidney infections and pressure sores requiring long-term hospitalizations** than their sedentary peers.[37]

Historical and Philosophical Roots of Adapted Sports and Recreation

The first organized sports competition for persons with disabilities took place in 1924 when the Committee International on Silent Sports (CISS) hosted the first World Games for the Deaf in Paris. However, 20 years passed before the adapted sports movement for persons with physical disabilities was formally introduced in the United States. In 1945, the American Athletic Association for the Deaf was organized. Concurrently, during the mid-1940s, hospitalized veterans in the United States and Great Britain began to play wheelchair sports.

Interestingly enough, adapted sports and recreation evolved from the rehabilitation movement. Early rehabilitation pioneers envisioned adapted sports and recreation as a potentially effective milieu for diminishing the negative physical, psychological, and social consequences of disability. Today, adapted sports and recreation are perceived less as a rehabilitative "means to an end" and more as an "end in themselves." As such, **adapted sports have gained increasing acceptance as a legitimate athletic endeavor, and the participants have become increasingly recognized for their athletic prowess** rather than for such stereotypical (and sometimes patronizing) attributes as courage and tenacity. The exploits and accomplishments of athletes with disabilities have moved from the "human interest" or "feature" sections of the newspaper to the sports pages. Contemporary wheelchair racers participate in wheelchair divisions within some of the world's most prestigious roadraces. In fact, wheelchair tennis, racing, weightlifting, cycling, table tennis, basketball, and other sports have been demonstrated at recent United States Olympic Sport Festivals. During their brief existence, **adapted sports have grown substantially with regard to their diversity, participatory depth, and performance standards**.

No sport better illustrates the increased mainstream acceptance of adapted sports as a legitimate

athletic endeavor than that of wheelchair track and field. Wheelchair track racing was introduced in 1957 at the First National Wheelchair Games, with races held in a parking lot. In stark contrast, the sport was showcased at the 1984, 1988, and 1992 Summer Olympics in Los Angeles, Seoul, and Barcelona, respectively. During each of these events, elite international fields of competitors exposed a world-wide audience of television viewers to the extraordinary talents of contemporary wheelchair racers.

Disability Classification

Persons with the same disability etiology often have discrepant functional capabilities, which translate into inequitable performance potential. To control for this disability-related functional variance, classification systems were created. These systems separated competitors according to the severity of their impairment. In so doing, **classification systems controlled competitive inequity attributable to disability in much the same way that gender and weight classes control inequity in sports for able-bodied persons**. Historically, three basic classification approaches have been used: medical/anatomical, functional, and performance-based.[38]

Medical classification was first introduced in the international wheelchair sports movement. Initially, only persons with spinal cord injuries were allowed to participate in wheelchair sports internationally. Because variation in the location of "complete" spinal lesions is associated with definitive neuromotor and sensory deficits, **participants were classified on the basis of upper and lower extremity muscle tests and trunk balance**.[38] For example, wheelchair basketball is played in the United States with the following medically based classification system:

- Class I: Complete spinal paraplegia at thoracic-7 or above, or comparable disability that severely limits trunk mobility and balance in addition to arm strength and range of motion
- Class II: Complete spinal paraplegia at thoracic 8 to lumbar, or comparable disability (including double-hip amputees) that limits forward, backward, and sideward trunk mobility and balance
- Class III: All other ambulatory disabilities, including lower limb amputations

In functional systems, the level of disability is assessed on the basis of the residual functional capability of the person rather than a medical diagnosis and muscle examination. Persons with missing limbs as the result of congenital anomalies or trauma are classified on the basis of the limb(s) involved and the location of the loss.[39] The ability of participants to use prostheses, orthoses, and/or other assistive devices is regulated on a sport-specific basis. Participants with above-knee and below-knee amputations may compete using a wheelchair or in a standing mode.

The third classification system approach, **performance based systems**, has been introduced with great success in wheelchair tennis and roadracing. In wheelchair tennis, **participants compete in different classes** ranging from "D-division" for novices to "open division" for the most proficient athletes. Similarly, in wheelchair roadracing, participants have competed for 2 decades in open competition without disability classes.

Adapted Sports and Recreational Options

WHEELCHAIR SPORTS:

Wheelchair sports are the most common form of adapted sports for persons with locomotor impairments. As a general rule, persons with a permanent impairment of the lower extremities that precludes participation in ambulatory sports (i.e., running, jumping, or moving laterally) are eligible to participate in wheelchair sports. Today's wheelchair sports participants can engage in local, regional, national, and international competition in sports such as track and field,

roadracing, basketball, tennis, softball, table tennis, racquetball, and rugby, among others. Quad rugby is a team sport for persons with impaired upper extremity function. Generally, the rules of wheelchair sports are only modified as necessary to accommodate the use of a wheelchair. For instance, in wheelchair tennis, the only significant rule change is that participants are allowed to play the ball on a second bounce if desired.

To a substantial degree, **the expanding opportunities available to wheelchair sports participants and the improved performance standards they have been able to achieve have been attributable to the introduction of new and/or more advanced technology**. For example, prior to 1975, wheelchair athletes used the same wheelchairs in competition that they used for everyday mobility. However, athletes became increasingly frustrated with the constraints that conventional wheelchair technologies imposed on their athletic performance potential. As a result, they began to design and build wheelchair modifications and to introduce wheelchair components of higher quality with startling effects.

Wheelchairs for contemporary sports have evolved into a highly specialized, sport-specific form of athletic equipment. Heavy steel tubing has been replaced by more advanced alloys from the aeronautics industry. Traditional designs have been altered to improve the strength-to-weight ratio of the wheelchair frame, and components have been incorporated into sports wheelchairs from the technically sophisticated realm of bicycle racing. These improvements alone have prompted better performances. Sports that previously were too difficult to play due to the weight and lack of maneuverability inherent in conventional wheelchairs have been transformed into viable pursuits with the introduction of ultralight wheelchairs.

SPORTS FOR PERSONS WITH VISUAL IMPAIRMENTS:

Persons with visual impairments also may participate in a myriad of individual and team sports and recreational pursuits. **Goal ball and beep baseball are two of the most popular team sports**. The former is a sport uniquely created for persons with visual impairments. In goal ball, two teams comprised of three athletes each defend goal areas that are 18 meters apart and 9 meters wide. The teams take turns rolling a large ball at the opposition's goal line; the ball is equipped with bells to allow tracking. **Classification is not employed in goal ball because all players are required to wear sleep shades, which control for variations in sight**. In beep baseball, the players hit a ball thrown by a sighted pitcher. The ball emits an audible tone to facilitate tracking by batters and fielders. After hitting the ball, the batter attempts to run safely to a base (also equipped with a beeper) before the ball is fielded by the defensive team.

In terms of individual sports, persons with visual impairments pursue activities such as gymnastics, judo, powerlifting, speed skating, track and field, and wrestling. As for rule modifications, gymnastics incorporates changes in spotting rules to enhance safety. The rules of judo and powerlifting are the same as those used by sighted participants. Speed skating and track racing incorporate accommodations such as sighted guides, tethered running guides, callers, and visual cues. As for wrestling, the only modification to the rules used by sighted competitors is that athletes cannot move behind a competitor when standing and not locked.

SPORTS ACCOMMODATIONS FOR PERSONS WITH AMPUTATED LIMBS:

Persons with amputated lower limbs can compete formally in any wheelchair sport. Those with missing upper limbs or who use lower limb prostheses may pursue track and field, weightlifting and volleyball in the ambulatory mode, and swim in formal competitions organized under the auspices of National Handicapped Sports. Ambulatory sports for persons with amputated limbs generally do not require significant rule changes.

As is the case with wheelchair sports, technology has played a significant role in opening avenues for the pursuit of physically active leisure by persons with amputated limbs. Significant advancements in the development of specialized prosthetics and/or the modification of existing sports equipment to accommodate use with prosthetic limbs have been the most instrumental in producing this positive trend. Perhaps the most notable improvement has been the introduction of technologically advanced prosthetic lower limbs that store and release energy, thereby allowing the recreation of normal heel-to-toe action.[40]

WINTER SPORTS:

Persons with all manifestations and levels of impairment can pursue downhill and/or cross-country skiing. **Four basic adaptive ski techniques are available to accommodate the participation of persons with disabilities in these sports: buddy system, three tracking, four tracking with or without a ski bra (a device attached to the skis that prevents them from crossing), and sit skiing**.

Persons with visual disabilities typically use the buddy system. In using this system, a sighted guide trails the skier with a visual impairment and continually communicates directions. Generally, **the guide does not lead, because looking back over his or her shoulder to give directions would increase the probability of miscommunicating left and right directions**.

Persons with impaired lower extremity stamina or balance may choose to ski using the three-track or four-track techniques. In three- and/or four-track skiing, crutch-like outriggers (devices that keep the vehicle from falling to the side when sitting still or traveling at a slow speed) equipped with mini-skis at the tips are used to improve stability. Generally, the three-track technique is used by persons with single-leg amputations and/or by persons with a single, functional lower limb; the four-track technique incorporates the use of skis on both legs. Specialized prosthetics are available for persons with upper extremity amputations.

Persons with locomotor impairments that preclude the use of a standing technique can use the sit-skiing technique in combination with a sit-ski sled or a more sophisticated mono-ski. Sit-ski sleds are fiberglass shells with metal edges. The participant uses shortened ski poles in each hand to control speed and direction. In contrast, mono-skis are equipped with a molded fiberglass seat attached to a single ski; the rider uses shortened outriggers to control direction and speed. Two ambulatory partners are required to assist a person using a sit-ski sled onto a ski-lift seat; the monoski is designed to require the assistance of only one spotter and can accommodate independent ski-lift access by an experienced mono-ski user. Typically, in learning to use sleds and mono-skis, novice skiers are tethered to able-bodied ski instructors to ensure they remain under control.

In contrast to downhill skiing, which is widely pursued, cross-country skiing only now is beginning to become popular in the United States. Therefore, few instructional cross-country skiing programs currently exist for persons with disabilities. Generally, this is **not an advisable pursuit for persons with severe disabilities due to the extraordinary strength required for this activity**. This is especially true for persons who must use a sit-ski for cross-country skiing. **However, cross-country skiing is an excellent choice for persons with visual impairments because it allows them to ski in tracks, side by side with a sighted guide.**

OUTDOOR SPORTS RECREATION:

The increasing accessibility of state and national parks and the advent of a variety of technological innovations have served as a catalyst for the increasing participation of persons with disabilities in vigorous outdoor sports such as hiking, camping, boating, cycling, golf, mountain climbing, and sky diving.

The viability of hiking (especially on mountain trails) for wheelchair users has improved greatly as a result of the introduction of all-terrain, lightweight wheelchairs with knobby tire wheels and/or manually propelled 4-wheel drive systems. Other accommodations for hikers with disabilities include the use of a **silicone gel liner** in the socket of a prosthesis to prevent trauma and having hikers with balance difficulties **pack heavier items at the bottom of their backpacks to improve their stability**. As for camping, numerous organizations, such as Wilderness Inquiry of Minneapolis, MN, and Wilderness on Wheels Foundation of Lakewood, CO, organize challenging wilderness expeditions for both able-bodied and disabled persons.

Boating, sailing, kayaking, and canoeing can be pursued by persons with locomotor impairments and/or amputated limbs with accommodations such as adaptive oar grips, lower and more supportive seating systems, and accessible docking areas. Generally, longer canoes are required to accommodate persons who need to portage their wheelchairs. When canoeing with persons with visual impairments, sighted partners generally sit at the bow of the canoe to watch for obstacles.

Persons with impairments of the lower extremities may choose from a wide range of recreational vehicles that are propelled by arm cranking. Two-wheeled arm-crank cycles with retractable outriggers allow persons with impaired lower limb function to experience the same exhilaration as able-bodied cyclists. For those who do not have the interest or ability to ride a two-wheeled cycle, numerous three-wheeled recreational cycles are available. These devices can be used expressly for exercise or for a cycling excursion with friends and family. The latter point is extremely important because few people can push a wheelchair at a velocity that would allow them to travel along with cycling partners.

Golf is another popular mainstream activity being pursued by a growing number of persons with a wide range of disabilities. Persons with an amputated arm or leg and wheelchair users may enjoy golf with a minimum of accommodation. A person with an amputated arm typically makes an adjustment in his or her stroke mechanics to optimize power with a one-arm swing. Persons who require a wheelchair for mobility may play in their wheelchairs or use a modified golf cart with a seat that swivels out to accommodate play. Visually impaired golfers can play with a sighted partner to provide basic information regarding distance, direction, wind, and course conditions. Other disability-specific golf accommodations include the use of shortened clubs and/or specialized prosthetics. The golfing tradition of "handicapping" the players' scores is an excellent accommodation that improves the potential for persons with disabilities to participate with their nondisabled friends and families.

Persons with disabilities also may participate in high-risk outdoor sports such as mountain climbing and sky diving. Persons with amputated limbs generally use a foot assembly that provides motion in all planes and/or modified crutches to make it easier to traverse rough, irregular terrain while mountain climbing.[41] Persons with paraplegia who participate in sky diving have been accommodated by jumping with a partner and/or by using a Wenger Cocoon to improve stability.[42]

WATER SPORTS:

Swimming remains one of the most universally adaptable physically active leisure pursuits. Because water provides buoyancy, it offers an environment wherein persons with disabilities are able to move more easily. Swimming also poses little risk of trauma to uncontrollable or hypersensitive limbs. **To accommodate swimmers who have significant visual loss, beepers or callers may be located at either end of the pool to provide directional support**. Generally, persons with disabilities use the same strokes to swim as able-bodied persons, and only modify their techniques as required by the manifestations of their disabilities. Persons with locomotor impairments often require assistance in entering and exiting the water; this can be achieved by having the aquatic staff trained in

the performance of manual transfers and/or by installing a ramp or mechanical lift.

Scuba diving and water skiing also are growing in popularity among persons with disabilities. Scuba diving may be taught to persons with disabilities with little or no change in the instructional content or technique.[42] **Disability-specific concerns that require special attention in this sport are skin protection, temperature regulation, and medication use. Persons with paraplegia can experience the exhilaration of the high-energy pursuit of water skiing by using a wide monoski with a mounted sling seat. Persons with a missing or impaired upper extremity may use a Delgar Sling to compensate for uneven pull, and visually impaired persons may ski with a coactor using a dual ski rope handle or a device known as a Ski Boom.**

EXERCISE FITNESS PROGRAMS:

Powerlifting and weightlifting constitute viable leisure choices for persons with disabilities for fitness or as competitive endeavors. Powerlifting refers to events such as the bench press and the squat, whereas weightlifting refers to such events as the clean and jerk and the snatch. The United States Association for Blind Athletes sanctions competition in powerlifting events, and all other national governing bodies of sports for persons with disabilities sanction weightlifting. (Refer to Table 1 for a list of governing sport organizations for disabled persons.)

Aerobic dance programs have been developed for persons with disabilities, and some have been produced on video to allow exercise at home. "Fitness is for Everyone" is an excellent example of a home-exercise video program. Developed by National Handicapped Sports, the program includes eight videos covering aerobics, strength, and flexibility exercises for persons with spinal cord injuries, cerebral palsy, and amputated limbs.

A wide array of specialized resistance training and exercise equipment also has been developed for

Table 1
National and International Sport Governing Bodies for Persons with Disabilities

Population	*National Association*	*International Association*
Locomotor Disabled	Wheelchair Sports-USA	International Stoke Mandeville, Wheelchair Sports Federation
Dwarf, Les Autres	National Handicapped Sports	International Sport Organization for the Disabled
Visually Impaired	United States Association for Blind Athletes	International Blind Sports Association
Dwarf/Short of Stature	Dwarf Athletic Association of America	International Sport Organization for the Disabled Committee on Silent Sports
Deaf & Hearing Impaired	American Athletic Association of the Deaf	
Cerebral Palsy	United States Cerebral Palsy Athletic Association	Cerebral Palsy-International and Recreation Association

NB: *Wheelchair Sports-USA (WS-USA) and National Handicapped Sports (NHS) are not disability-dedicated organizations. NHS directs winter sports, recreation, fitness, and outdoor programming for all disabilities. WS-USA accommodates all persons with lower extremity impairments that preclude participation in ambulatory sports.*

persons with disabilities. For persons with lower extremity impairments, various arm ergometers are available. Arm ergometers are similar to stationary exercise bikes and are used by persons who do not have sufficient lower limb function to pedal a cycle ergometer. Some arm ergometers are designed to be mounted on a table top and others are free-standing, wheelchair-accessible floor models. Various single-drum and double-drum wheelchair roller systems also are available; such devices are similar in function to treadmills. Some systems allow the user to push onto the rollers, secure the wheelchair, and begin to exercise; other systems require the user to transfer to the wheelchair after it is secured to the rollers.

As for weight training equipment, many persons with disabilities can simply use existing equipment without any specialized accommodations. Persons with impaired grip may only require an adaptive cuff to allow them to grip the bars and pulleys. Less-mobile persons may require specialized resistance-training equipment that does not require them to transfer out of the wheelchair. Fortunately, during recent years, devices such as the Versatrainer, Freedom Machine, and the Multiexercise Unit have been introduced to meet the specific needs of this group.

Implications for Rehabilitation Counselors

In order to attain the definitive rehabilitation objective of minimizing the extent to which the manifestations of disability limit human potential for achievement and societal assimilation and participation, persons with disabilities must be prepared to manage their leisure *and* their work. **It is clear that increasing the availability of opportunities for the pursuit of physically active leisure constitutes a necessary but insufficient condition to promote such a lifestyle change. In addition, motivation, education, advocacy, and active support for this objective will be needed if it is to be realized; herein lies the responsibility of rehabilitation professionals.**

Persons with disabilities may not believe that it is possible for them to pursue physical activities. Some who only recently have experienced disability onset may not be aware of their potential for physical activity due to their lack of familiarity with their disabling condition. Others who have had their disabilities for some time have, in all probability, not been socialized to pursue such interests. Traditional sports socialization agents and agencies (family, friends, schools, community recreation agencies) generally have not sought to promote their participation in physically active leisure. Therefore, **it is critical that rehabilitation professionals help reverse this trend by stimulating interest in the pursuit of physically active sports and recreation among persons with disabilities who have learned all too well neither to expect nor demand that they be afforded such opportunities.**

Rehabilitation professionals should identify community programs and resources that accommodate physically active sports and recreation participation on the part of persons with disabilities and advise clients as to their availability. Counselors can play an important role in educating persons with disabilities about the variety and scope of adapted athletic options that exist. Of course, for those counselors who wish to be involved more directly in the development and/or administration of such programming, opportunities abound to serve as coaches, officials, or volunteers.

In purchasing goods and services that enhance the employability of persons with disabilities, rehabilitation counselors also can promote the pursuit of physically active leisure. For example, a counselor may restrict the purchase of a wheelchair to a "known" standard of a "trusted" manufacturer that will provide years of satisfactory service. However, it may weigh 35 pounds and lack the maneuverability necessary to allow the person to play tennis. In contrast, the counselor could purchase a more maneuverable and substantially lighter 18-pound wheel-

chair, which would perform satisfactorily both at work and on the tennis court.

Rehabilitation professionals can play an important role as advocates for improved accessibility of both public and private sports and recreational programs and facilities. However, rehabilitation professionals might serve the role of advocate best by educating persons with disabilities about the importance of self-advocacy in obtaining access to sports and recreation programs and facilities. Indeed, the latter function may be the most critical, because the development of an astute group of self-advocates is ultimately the only way to ensure the accomplishment of any objective.

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Questions Based On This Lesson

45. Which of the following statements is false?

A. Too much attention to the issue of competitive employment for disabled persons can undermine their ability to achieve and/or sustain meaningful employment.

B. Compared with the general population, persons with disabilities are at equal risk of incurring debilitating health problems.

C. Results from the Bullock study revealed that the "leisure competence" of disabled persons was related to their productivity and performance in work settings.

D. Research shows that persons with physical disabilities are inclined to adopt sedentary lifestyles.

46. Which of the following is *not* a type of classification system used to control for disability-related functional variance in competition for disabled persons?

A. Medical/anatomical

B. Functional

C. Performance-based

D. Strength

47. Which of the following statements about persons with spinal cord injuries is true?

A. Compared with their vigorously active counterparts who participate in wheelchair sports, sedentary persons have significantly higher levels of high-density lipoprotein.

B. Cardiovascular disorders are not often observed in this population.

C. According to research conducted by Stotts, active adults with spinal cord injuries had fewer kidney infections than did their sedentary peers.

D. Studies have repeatedly demonstrated that it is impossible to improve maximum oxygen consumption through the use of aerobic exercises.

48. Joint participation of persons with disabilities and their able-bodied peers in physically active leisure pursuits has shown all of the following *except*:

A. Joint participation is much less beneficial to disabled persons than are segregated sports

B. Able-bodied persons' evidence a positive change in their perceptions of the sport competence of their peers with disabilities

C. The effects of stigmatization, stereotyping, and prejudice are countered

D. Joint participation helps promote community reintegration

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